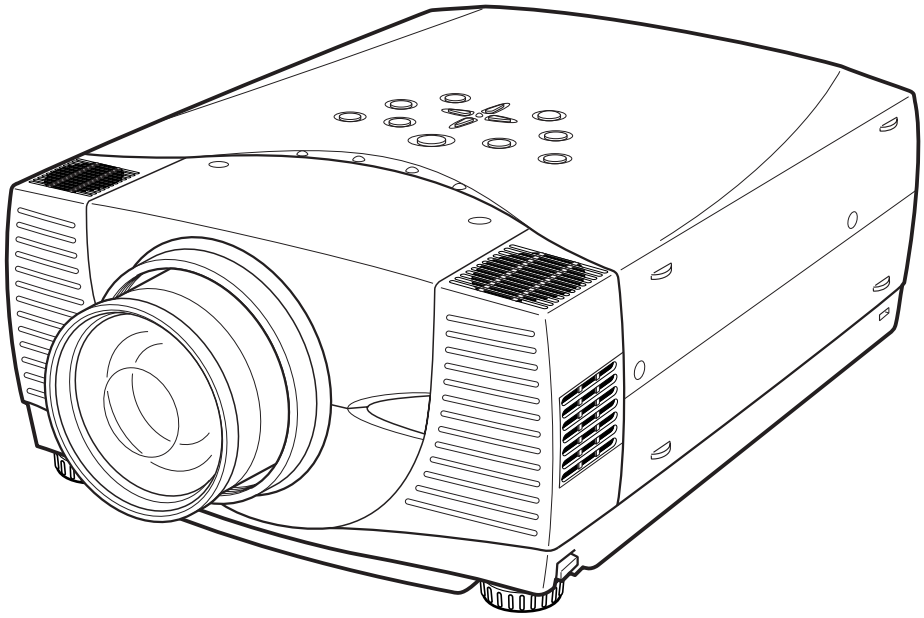
TOSHIBA

3LCD DATA PROJECTOR

Model TLP-X4100U
(U.S.A., Canada)
TLP-X4100E
(Europe, Asia, Africa)



SERVICE MANUAL

Original Version

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SAFETY PRECAUTIONS

WARNING:
The chassis of this projector is isolated (COLD) from AC line by using the converter transformer. Primary side of the converter and lamp power supply unit circuit is connected to the AC line and it is hot, which hot circuit is identified with the line (⎓) in the schematic diagram. For continued product safety and protection of personnel injury, servicing should be made with qualified personnel.

The following precautions must be observed.

1: An isolation transformer should be connected in the power line between the projector and the AC line before any service is performed on the projector.

2: Comply with all caution and safety-related notes provided on the cabinet back, cabinet bottom, inside the cabinet or on the chassis.

3: When replacing a chassis in the cabinet, always be certain that all the protective devices are installed properly, such as, control knobs, adjustment covers or shields, barriers, etc.

DO NOT OPERATE THIS PROJECTOR WITHOUT THE PROTECTIVE SHIELD IN POSITION AND PROPERLY SECURED.

4: Before replacing the cabinet cover, thoroughly inspect the inside of the cabinet to see that no stray parts or tools have been left inside.

Before returning any projector to the customer, the service personnel must be sure it is completely safe to operate without danger of electric shock.

PRODUCT SAFETY NOTICE

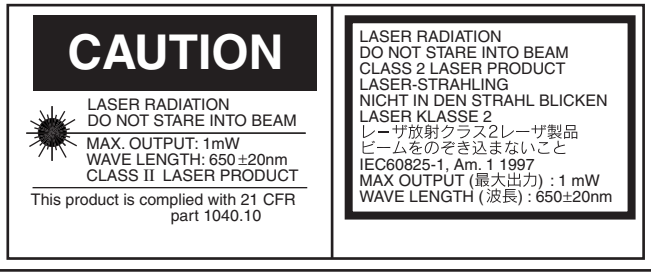
Product safety should be considered when a component replacement is made in any area of the projector. Components indicated by mark ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. It is, therefore, particularly recommended that the replacement of there parts must be made by exactly the same parts.

SERVICE PERSONNEL WARNING

Eye damage may result from directly viewing the light produced by the Lamp used in this equipment. Always turn off Lamp before opening cover. The Ultraviolet radiation eye protection required during this servicing.
Never turn the power on without the lamp to avoid electric-shock or damage of the devices since the stabilizer generates high voltages(15kV - 25kV) at its starts.
Since the lamp is very high temperature during units operation replacement of the lamp should be done at least 45 minutes after the power has been turned off, to allow the lamp cool-off.

DO NOT ATTEMPT TO SERVICING THE REMOTE CONTROL UNIT.

Laser Beam may be leaked out when in disassemble the Unit. As the Laser Beam used in this Remote control unit is harmful to the eyes.



■ Specifications

Projector Type	3LCD DATA PROJECTOR
Dimensions (W x H x D)	12.6” x 6.6” x 18.5” (319mm x 168mm x 470mm)
Net Weight	18.5 lbs (8.4 kg)
LCD Panel System	1.3” TFT Active Matrix type, 3 panels
Panel Resolution	1024 x 768 dots
Number of Pixels	2,359,296 (1024 x 768 x 3 panels)
Color System	6 color system (PAL, SECAM, NTSC, NTSC4.43, PAL-M and PAL-N)
High Definition TV SIgnals	480i, 480p, 575i, 575p, 720p. 1035i and 1080i
Scanning Frequency	H-sync. 15 ~ 100kHz, V-sync. 50 ~ 100Hz
Projection Image Size (diagonal)	Adjustable from 31” to 400”
Horizontal Resolution	800 TV lines (HDTV)
Projection Lens	F 1.7 ~2.0 lens with f=48.2mm ~ 62.6mm with motor zoom and focus
Throw Distance	4.6’ ~ 48.3’ (1.4m ~ 14.7m)
Motorized Lens Shift	Up and Down
Projection Lamp	275watts
Input 1 Jacks	DVI Terminal (Digital), HDB 15-pin Terminal (Analog) and Stereo Mini Type Jack (Audio)
Input 2 Jacks	BNC Type x 5 (G or VIDEO/Y, B or Cb/Pb, R or Cr/Pr, H and V), Stereo Mini Type Jack (Audio)
Input 3 Jacks	RCA Type x 3 (VIDEO/Y, Cb/Pb, Cr/Pr), RCA Type x 2 (Audio R and L) and DIN 4-pin (S-Video)
Other Jacks	DIN 8-pin (Control port), USB port (Series B receptacle), Wired Remote Jack and Network Board Connector Jack
Built-in Speakers	2 speakers Stereo (R and L), 2 watts RMS (T.H.D. 10%)
Feet Adjustment	0˚ to 10.5˚
Voltage and Power Consumption	AC 100 ~ 120V (4.8A Max. Ampere), 50/60Hz (The U.S.A and Canada) AC 200 ~ 240V (2.4A Max. Ampere), 50/60Hz (Continental Europe)
Operating Temperature	41 ˚F ~ 95 ˚F (5˚C ~ 35˚C)
Storage Temperature	14 ˚F ~ 140 ˚F (-10˚C ~ 60˚C)
Remote Control Transmitters	Wireless/Wired Remote Control, batteries AA, UM3 or R06 Type x 2

● The specifications are subject to change without notice.

c UL us LISTED

This symbol on the nameplate means the product is Listed by Underwriters Laboratories Inc. It is designed and manufactured to meet rigid U.L. safety standards against risk of fire, casualty and electrical hazards.

■ Adjustments after Parts Replacement

● : Adjustment necessary ❍ : Check necessary

		Disassembly / Replaced Parts								
		LCD/ Prism Ass'y	Condenser Lens	Relay Lens	Polarized glass			Power Board	Sub Power Board	Main Board
					R	G	B			
Optical Adjustments	Condenser lens adjustment	❍	●							
	Relay lens adjustment	❍		●						
	Contrast Adjustment									
	R-Contrast adjustment				●					
	G-Contrast adjustment					●				
	B-Contrast adjustment						●			
Electrical Adjustments	Output voltage adjustment							●		
	+16 V adjustment							●		
	Video center adjustment									●
	NRS adjustment									●
	PC pedestal adjustment									●
	Black level adjustment									●
	PC gain adjustment									●
	PC gamma shift adjustment									●
	HDTV pedestal adjustment									●
	HDTV A/D input adjustment									●
	HDTV Gain adjustment									●
	Video pedestal adjustment									●
	Video A/D input adjustment									●
	A/D offset adjustment									●
	Video gain adjustment									●
	Video gamma shift adjustment									●
	Common center adjustment	●								●
	White balance adjustment	❍								❍

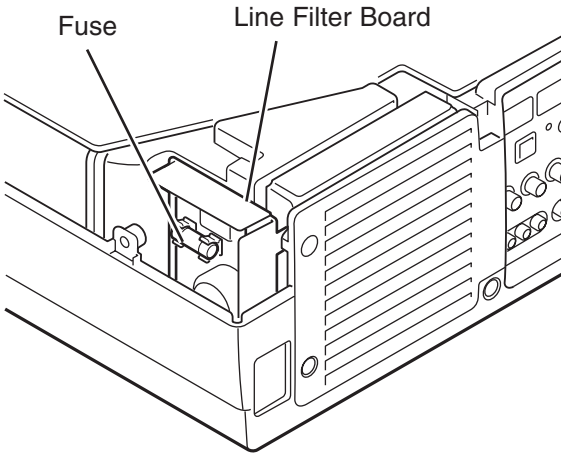
■ Circuit Protections

This projector is equipped with the following circuit protections to operate in safety. If the abnormality occurs inside the projector, it will automatically turn off by operating one of the following protection circuits.

● Fuse

The fuse is located inside of the projector. When either the LAMP indicator or the READY indicator is not illuminated, fuse may be opened. Check the fuse as following steps.
It should be used the specified fuse as follows;

Fuse Part No.: 423 025 1201
TYPE T8AH 250V FUSE
LITTEL FUSE INC. TYPE 215008



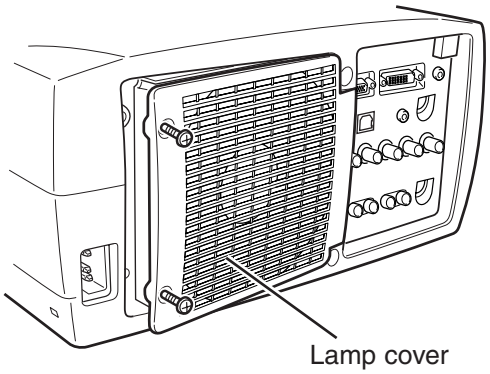
How to replace the fuse

1. Remove the cabinet top following to “Mechanical Disassemblies”.
2. Remove the fuse from fuse holder.

To install the fuse, take reversed step in the above.

● Thermal switch

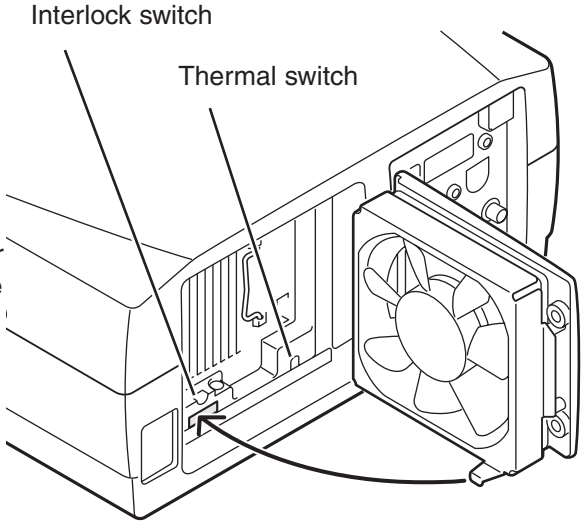
There is the thermal switch (SW905) inside of the projector to prevent the internal temperature from rising abnormally. When the internal temperature reaches near 90˚C, turn off the AC main power supply automatically.
The thermal switch is not reset to normal automatically even if the internal temperature becomes normal. Reset the thermal switch following procedure.
Check the resistance between terminals of thermal switch by using the tester. If it has high impedance, thermal switch may be in operative.



How to reset the thermal switch

1. Loosen 2 screws and open the lamp cover.
2. Press the reset button on the thermal switch with a sharp-pointed tool.

CAUTION:
Before press the reset button, disconnect the AC cord from the projector.



● Interlock switch

The interlock switch (SW902) cuts off the AC mains power supply when the lamp cover is removed. After opening the lamp cover for replacing the lamp ass’y, place the lamp cover correctly otherwise the projector can not turn on.

● Warning temperature and power failure protection

The TEMP WARNING indicator flashes red and the projector will automatically turn off when the internal temperature of the projector exceeds the normal temperature or when stopping cooling fans or when the internal power supply lines are failed.

Check the following possible causes and wait until stopping the TEMP WARNING indicator flashing.

Possible causes

- Air filter is clogged with dust particles. Remove dust from the air filter by following instructions in the “Air filter care and cleaning” below.
- Ventilation slots of the projector are blocked. In such an event, reposition the projector so that ventilation slots are not obstructed.
- Check if projector is used at higher temperature place (Normal operating temperature is 5 to 35 ˚C or 41 to 95˚F)

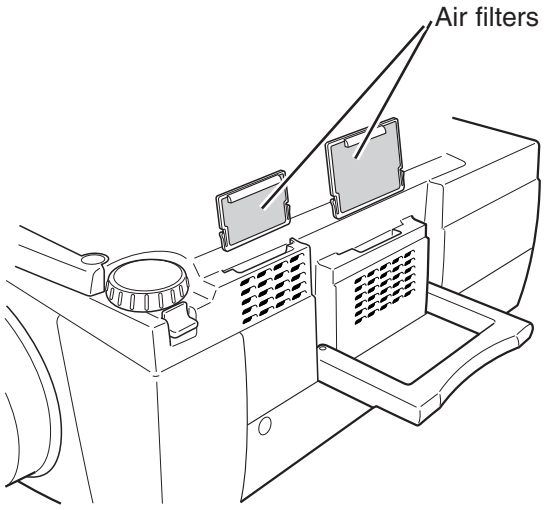
If the TEMP WARNING indicator still continues to flash, there may be defects on cooling fans or power supply circuits. Please check fan operation and power supply lines referring to the “Power Supply Lines Chart”.

Air filter care and cleaning

The removable air filter prevents dust from accumulation on the surface of the projection lens and projection mirror. Should the air filter become clogged with dust particles, it will reduce the cooling fan’s effectiveness and may result in internal heat build up and reduce the life of the projector.

To clean up the air filters, follow the cleaning procedure below:

1. Turn the power off, and disconnect the AC power cord from the AC outlet.
2. Turn the projector up side down and remove an air filters by pulling the latches of them upward.
3. Clean the air filters with brush or wash out the dust and particles.
4. Replace each air filter properly. Make sure that the air filters are fully inserted.



CAUTION:

Do not operate the projector with the air filter removed. The dust is stuck on the LCD panel and the mirror, and it may spoil the fine picture image.
Do not put the small parts into the air intake vents. It may result in the malfunction of the projector. The air filter is small parts. Take care that children don’t eat or swallow it.

RECOMMENDATION

We recommend to avoid dusty, smoky place for operating the projector. Using in dusty place may cause the picture of poor quality.
When using under the dusty or smoky conditions, dust may accumulate on the LCD panel and lens inside it, and may resultantly be projected on the screen together with the picture.
When the above symptoms are noticed, please clean up the LCD panel and lens following to the “Cleaning Method”.

■ Mechanical Disassemblies

Mechanical disassemble should be made following procedures in numerical order.
Following steps show the basic procedures, therefore unnecessary step may be ignored.
Caution:
The parts and screws should be placed exactly the same position as the original otherwise it may cause loss of performance and product safety.

1 Cabinet Top removal

1 Remove 5 screws **A**, 2 screws **B**, and loosen 2 screws **C**, and then take the Cabinet Top upward off.

Note: If you want to remove the Cabinet Front-Top only, you do not need to remove screws **A**. Remove 2 screws **B** and Lens Front Cover.

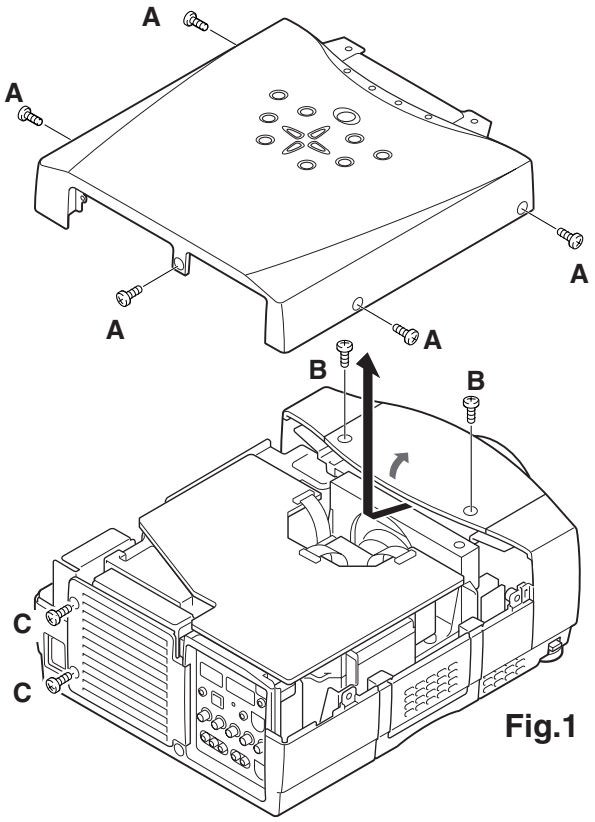


Fig.1

2 Cabinet Front removal

1 Turn the Lens Front Cover counter-clockwise and to take it off by pulling forward as shown in **Fig.2-1.**
2 Remove the Cabinet Front-Top, Lens Cover Holder and Lens Cover upward off.
3 Remove 2 screws **D** to take the Cabinet Front off.
4 Remove the RC Board and speakers on the Cabinet Front.

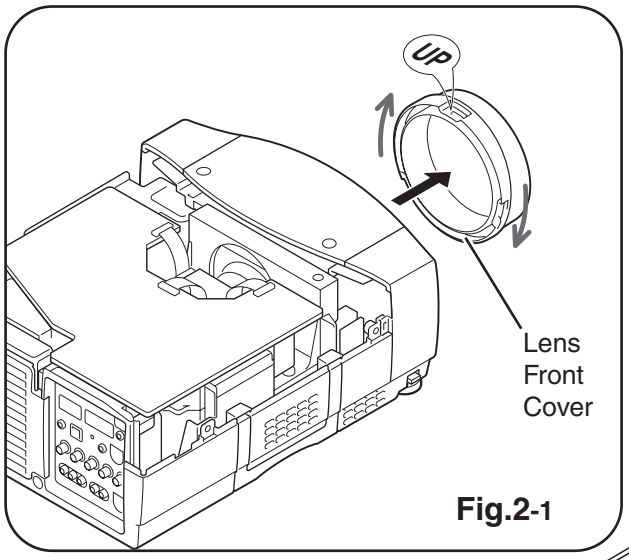


Fig.2-1

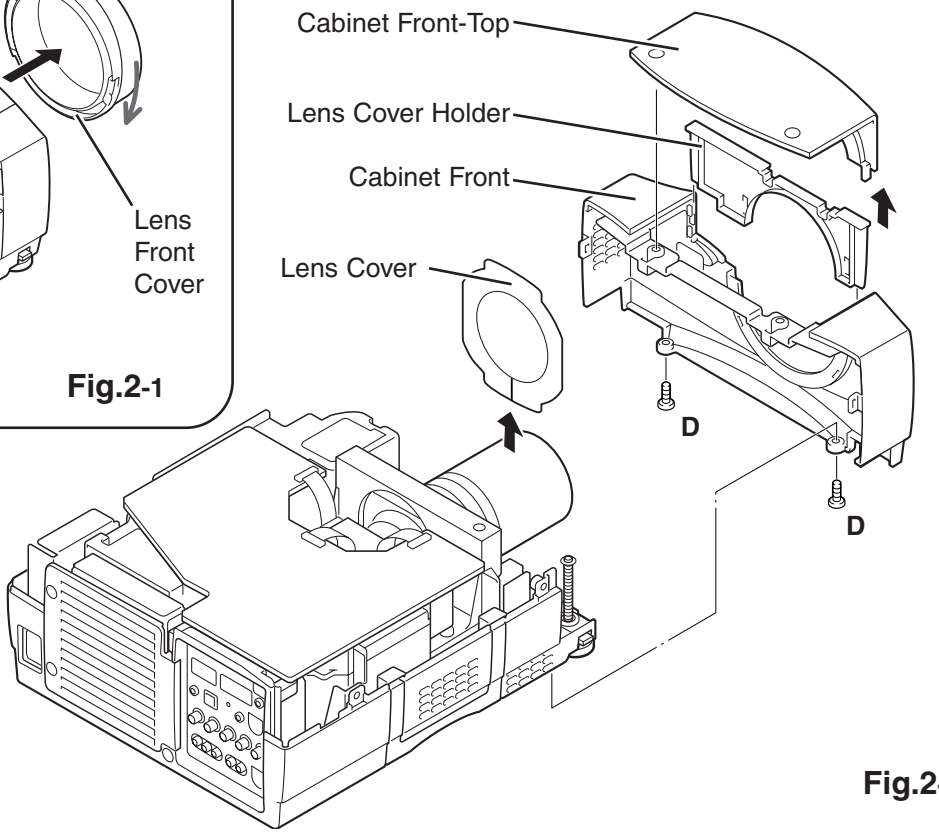


Fig.2-2

3 Main Board removal

1 Remove 7 screws to take the Main Board upward.

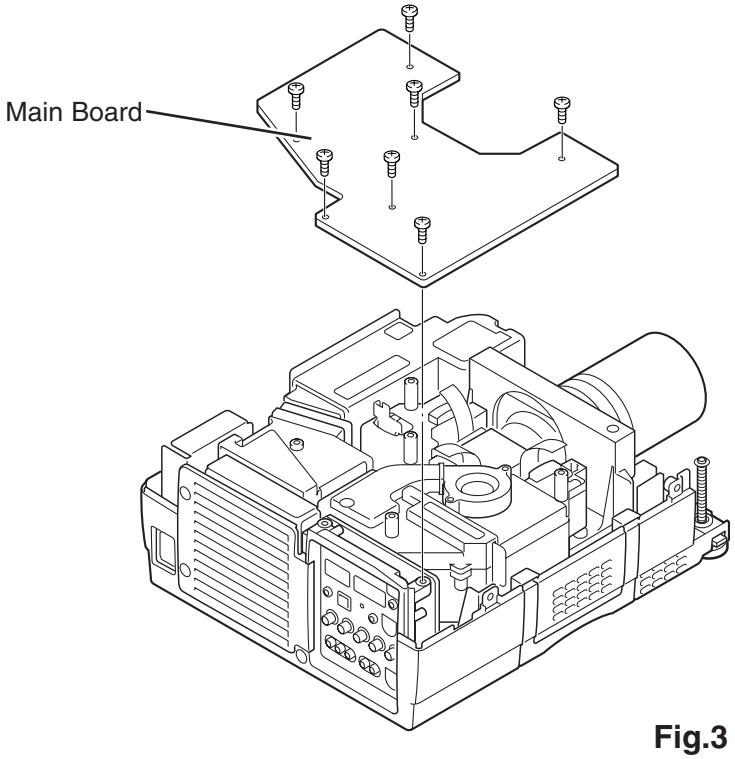


Fig.3

4 AV, I/F Board & Rear Panel removal

1 Remove 1 screw **A** and take the Rear Panel ass'y upward off.
2 Remove 4 screws **B** to take the fan (FN905) off.
3 Remove 5 screws **C** and 1 screw **D** to take AV Board from the Rear Panel ass'y off.
4 Remove 2 screws **E** and grounding leads and then pull up the I/F Board and Holder assy from the bottom cabinet.
5 Remove 4 screws **F** to take the I/F Board.

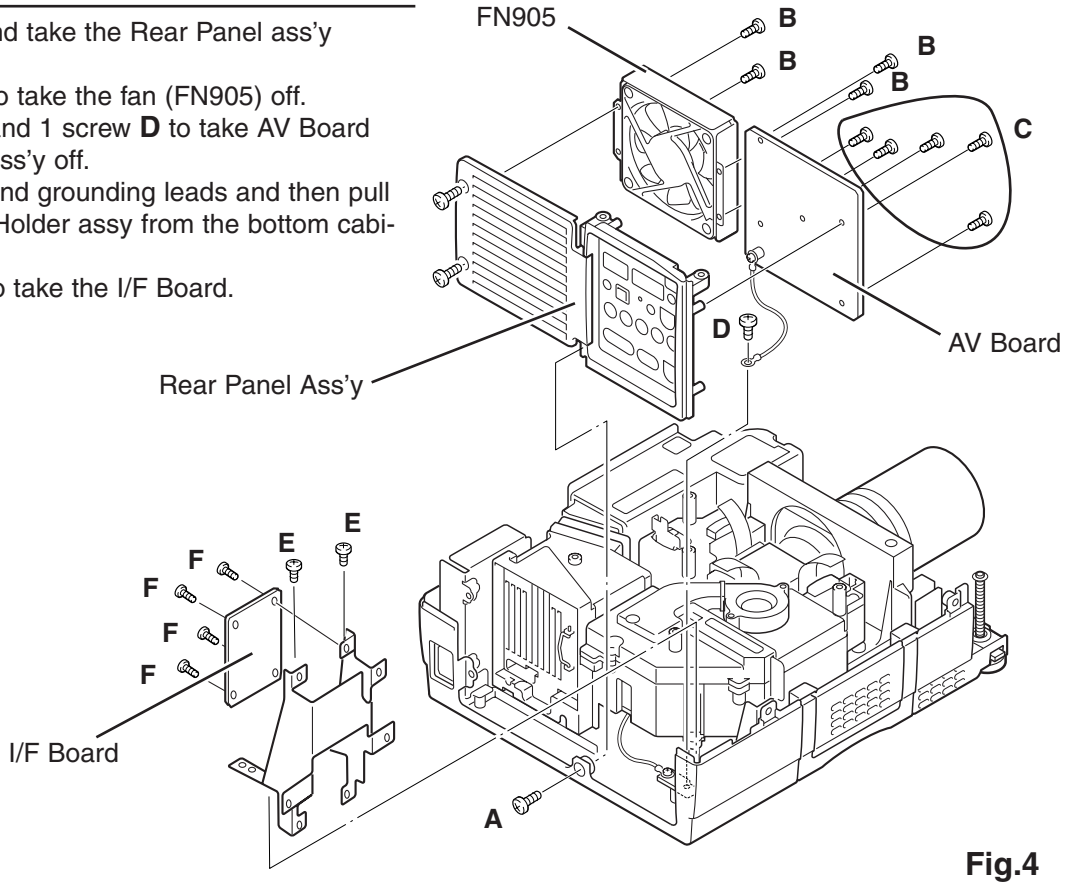


Fig.4

5 Lamp Ballast Unit removal

1 Remove 4 screws **A** to take the Ballast Cover upward off.
2 Remove 2 screws **B** to take the Fan (FN903) off.
3 Remove the Sub Power Board and Drive Board by pulling them upward.

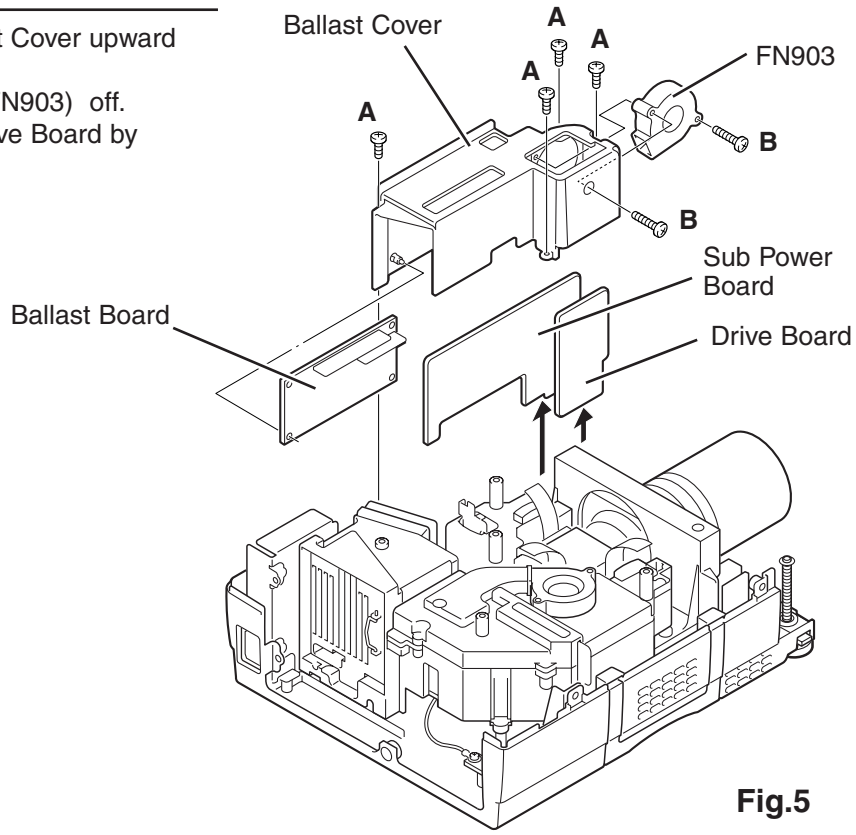


Fig.5

6 Optical Unit removal

1 Remove 1 screw **A** and then remove the holder.
2 Remove 2 screws **B** and 4 screws **C**(small) and pull the Optical Unit upward off.
3 Remove 4 screws **D** to take the Fan (FN908) off.
4 Remove 1 screws **E** to take the Fan (FN904) off and 2 screws **F** to take the air duct off.
5 Remove 3 screws **G** to take the Fan (FN907) off.

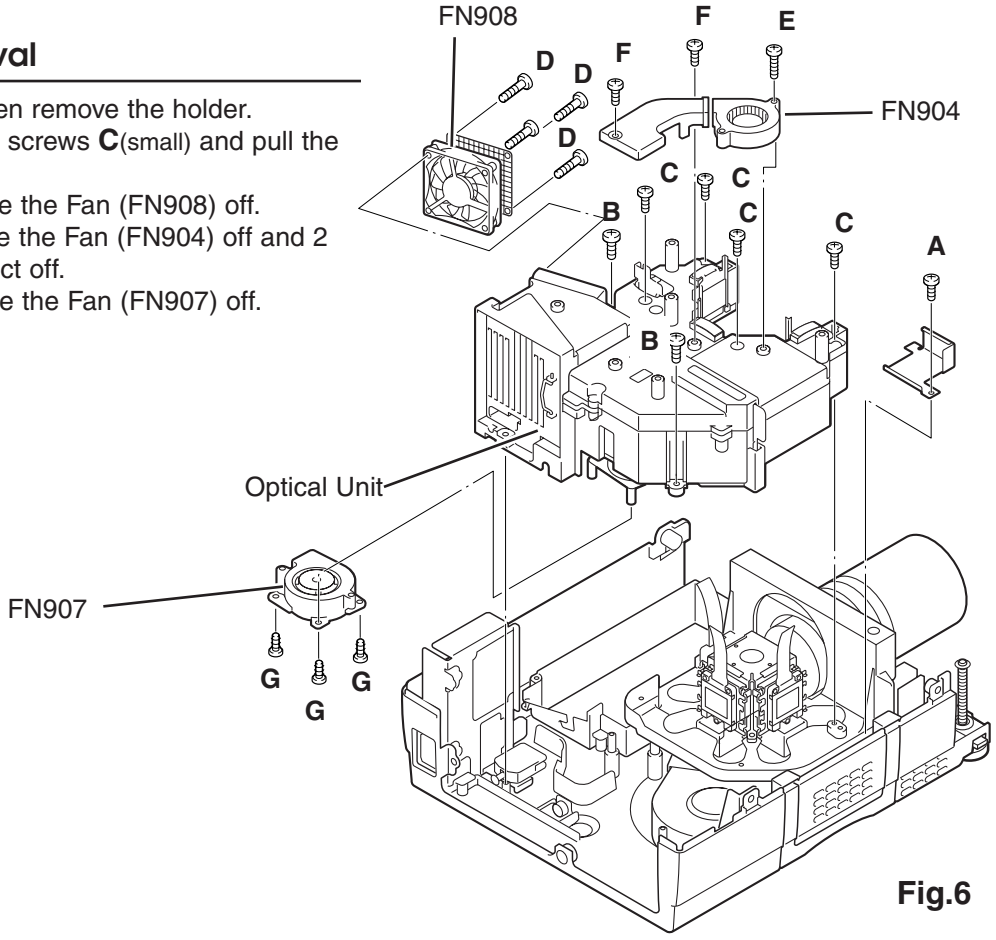


Fig.6

7 Prism Base removal

1 Remove 2 screws **A** to take the Prism Base ass'y upward off.
2 Remove 2 screws **B** to take the Lens Shift Motor and Sensor SW Holder from the Base.

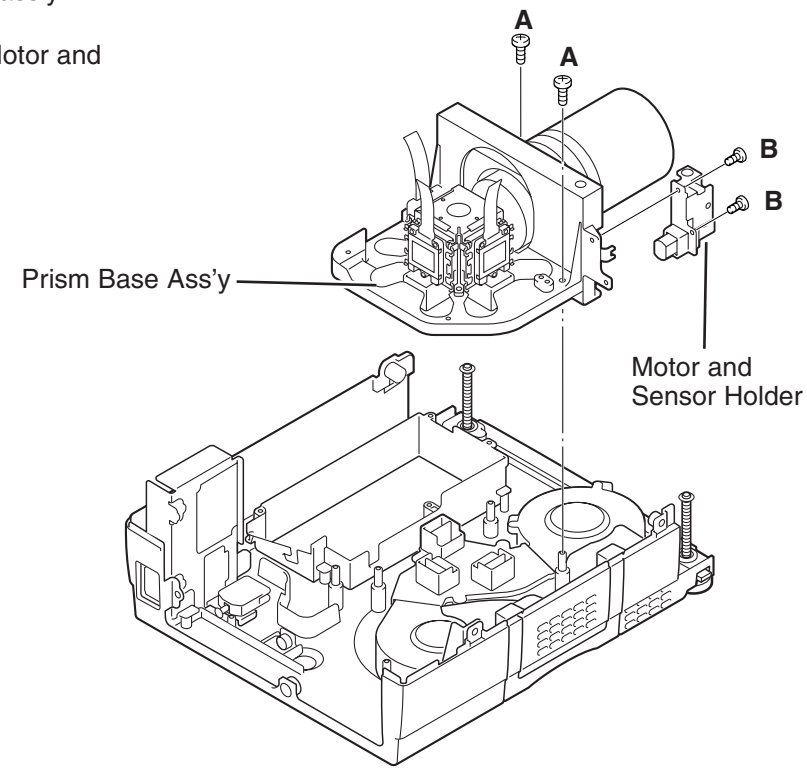


Fig.7

8 Power Board removal

1 Remove 3 screws **A** to take the Power Board off.
2 Remove 4 screws **B** to take Holder off from the cabinet bottom.

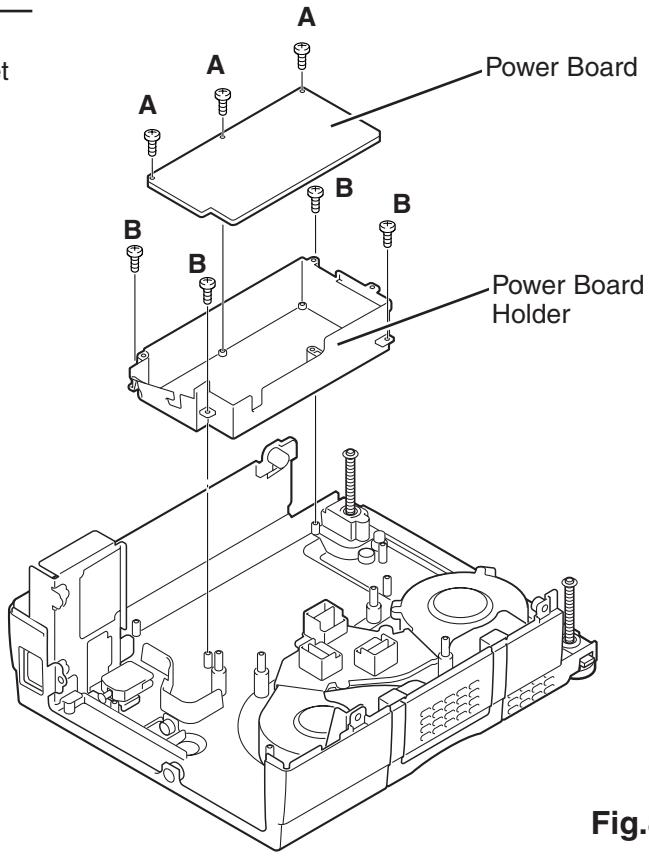


Fig.8

9 Line Filter Board & Interlock SW & Thermal SW removal

1 Remove 1 screw **A** to take Interlock Switch(SW905).
2 Remove 2 screws **B** to take Filter Board Holder and remove 2 screws **C** to take Filter Board from the Holder.
3 Remove 1 screw **D** to take Thermal Switch(SW902).

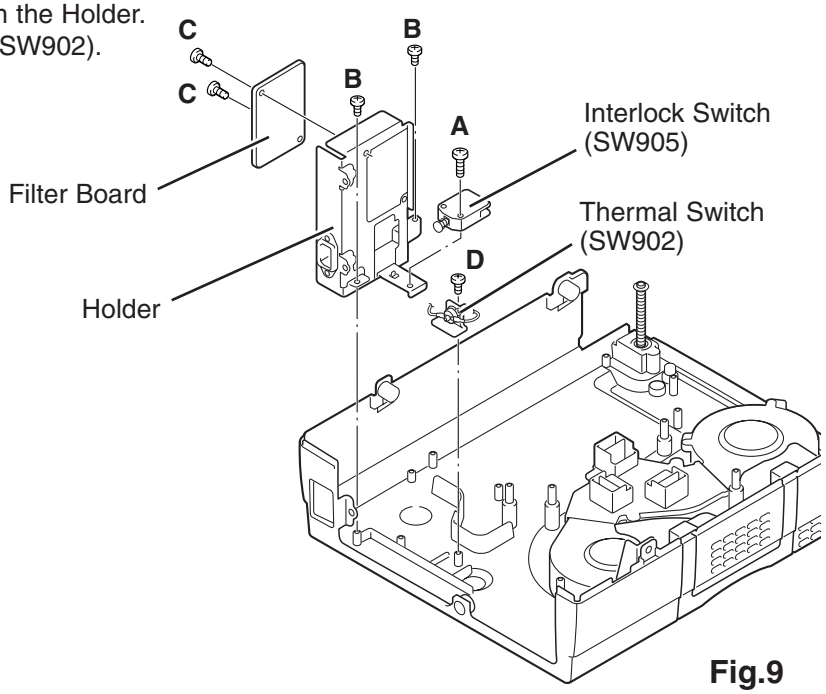


Fig.9

10 Fans (FN901, FN902) removal

1 Remove 4 screws **A** to take Air-duct Top off.
2 Remove 1 screw **B** (small) and 1 screw **C** (big) to take Duct Cover-A.
3 Remove 2 screws **D** to take Fan (FN901) off.
4 Remove 2 screws **E** (small) and 2 screws **F** (big) to take Air-duct-A and Fan (FN902) off.

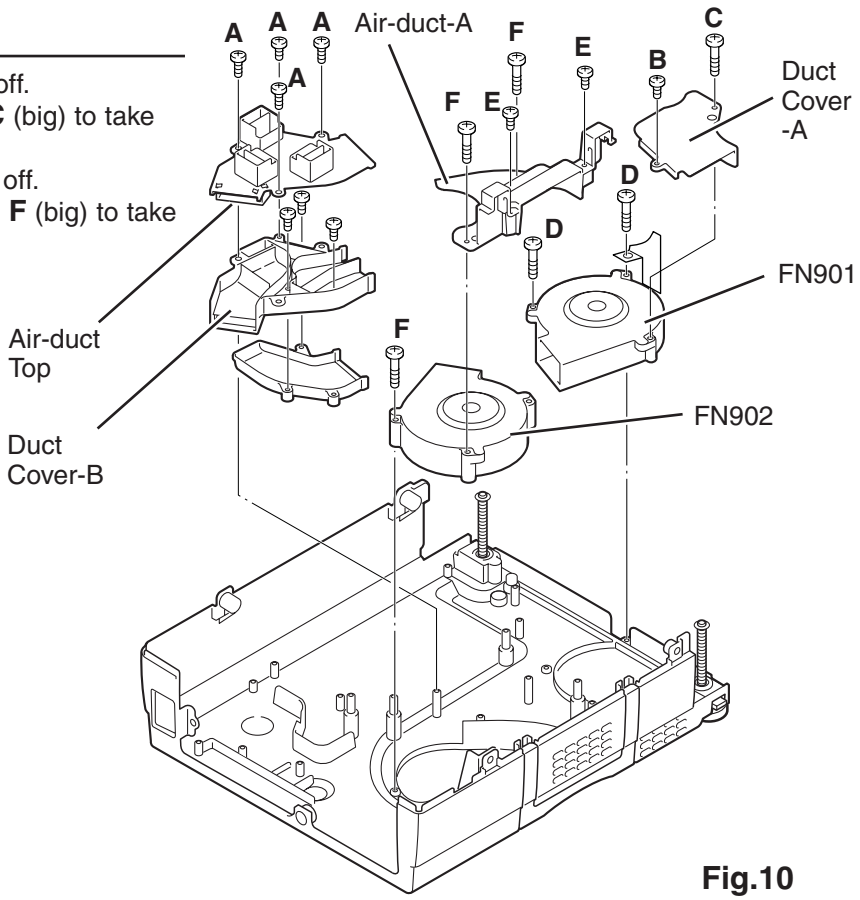


Fig.10

■ Optical Parts Disassemblies

Before taking this procedure, remove Cabinet Top and Main Board following to the “Mechanical Disassemblies”. Disassembly requires a 2.0mm or 2.5mm hex wrench and a slot screwdriver.

Projection Lens removal

1 Remove Cabinet Front-Top following to the chapter “Mechanical Disassemblies”.
2 Loosen 2 screws **A** with 2.5mm hex wrench.
3 Unhook 2 hooks **B** on the both side of the lens and remove the Projection Lens ass’y off.

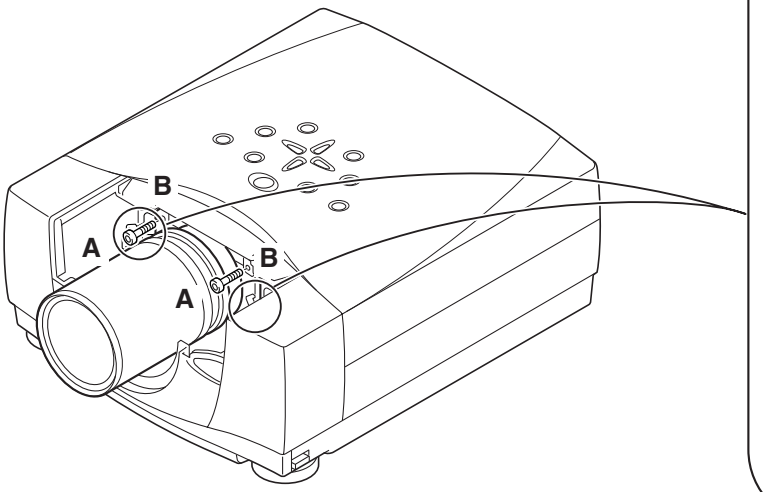


Fig.1

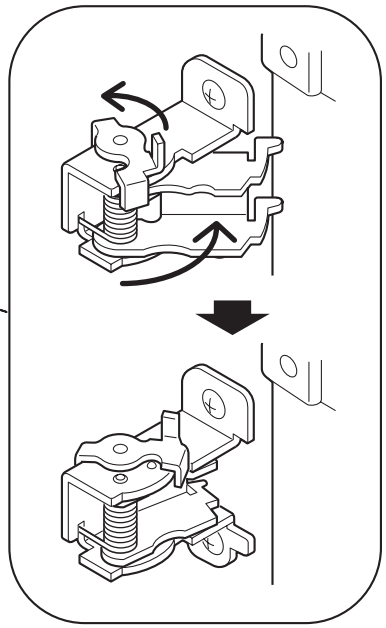


Fig.1-2

Polarized Glass-In removal

1 Remove each hex screw and pull the Polarized Glass-In ass’y upward.
2 Remove a stopper and take the glass off upward.

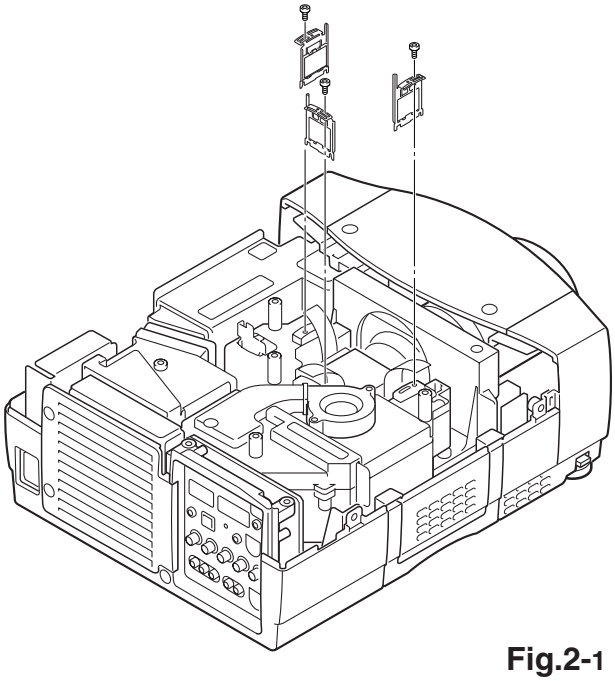


Fig.2-1

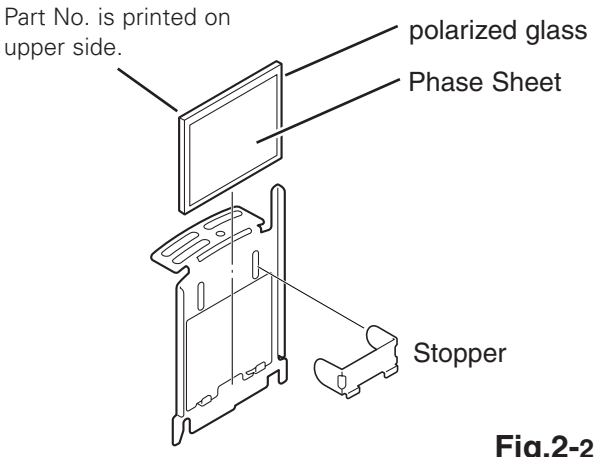


Fig.2-2

* Glass should be placed as the printed marker comes to the upper left corner.

Relay Lens disassembly

1 Remove 2 hex screws **A** and pull the Relay Lens ass'y upward.
2 Remove 2 screws **B** to take the Lens off from the holder.
Note:
There is no mounting direction of the lens.

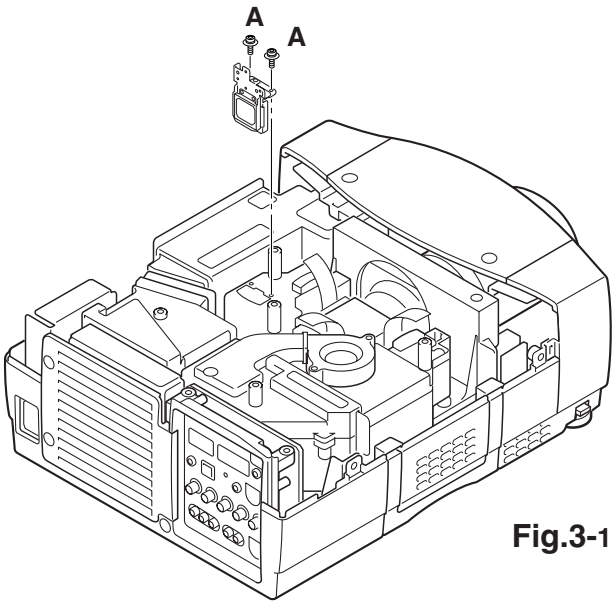


Fig.3-1

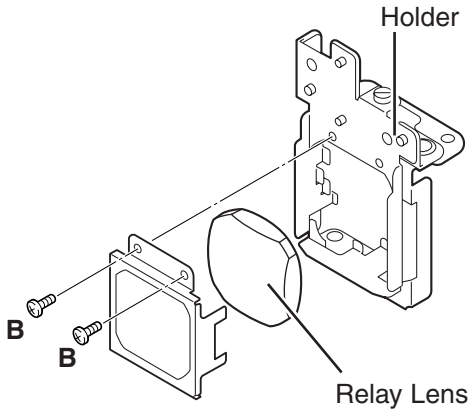


Fig.3-2

Polarized Glass-Out and Wide view Glass removal

1 Remove 4 hex screws **A** and take the LCD/Prism ass'y off upward.
2 Remove 3 screws **B** and take the Glass Holder, and then pull the polarized Glass-Out and the wide view glass upwards off. These glasses are mounted for R, G and B LCD panels respectively.
Note:
To avoid the CG and focus alignments slipping off, please be careful to handle the LCD/Prism ass'y.

Note:
Do not replace the LCD panel separately otherwise it can not obtain proper picture.

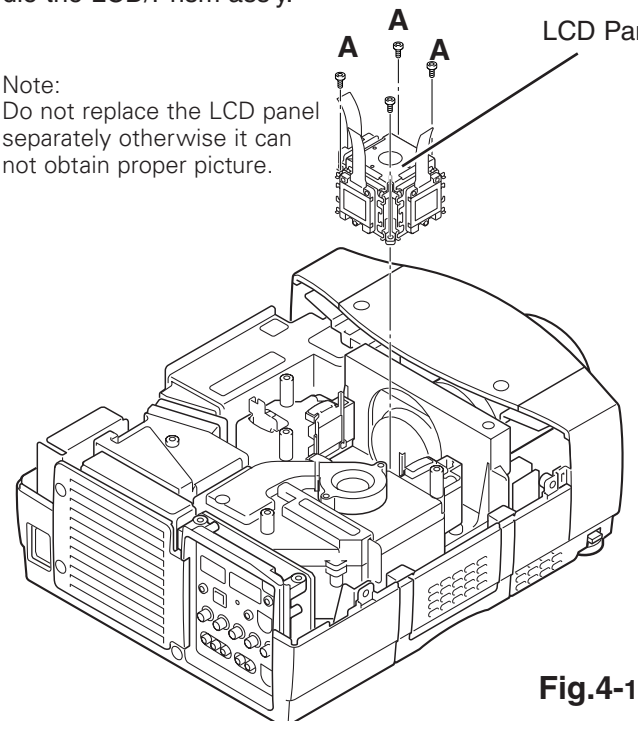
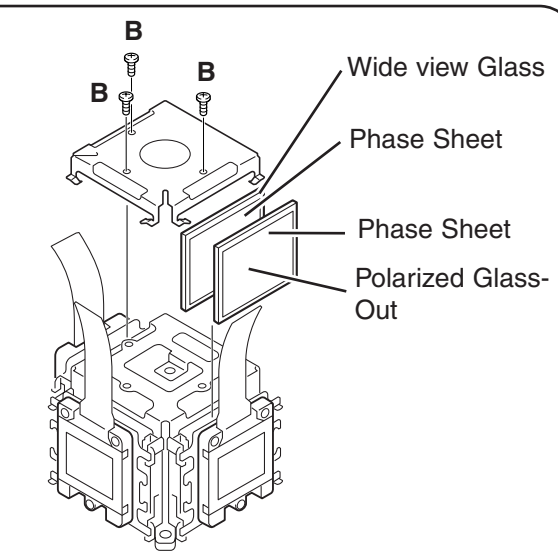


Fig.4-1



* Glasses should be placed as the sheet attached side comes to the LCD panel side.

Fig.4-2

Optical Unit Top removal

1 Remove 7 screws to take the Optical Unit Top off upward.

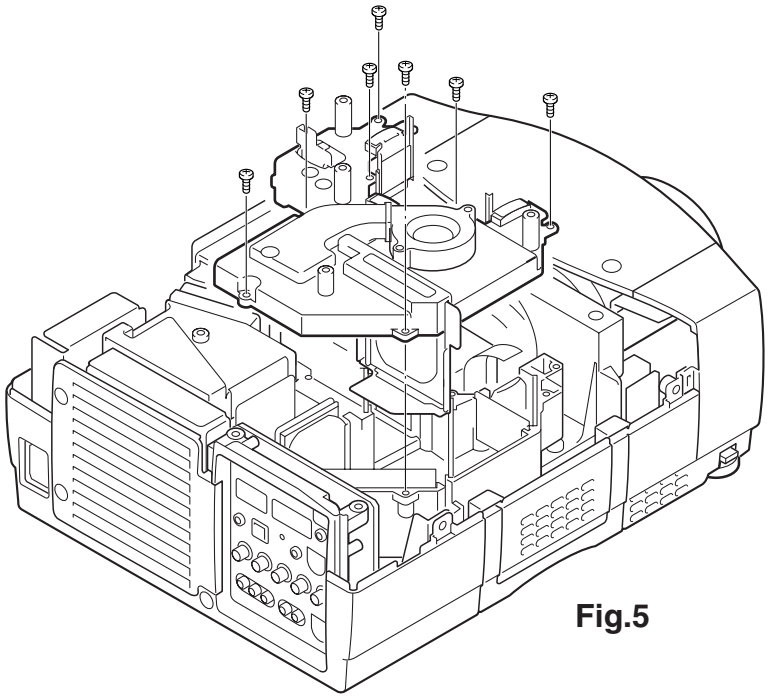


Fig.5

Condenser Lens disassembly

1 Remove 2 hex screws **A** and take the Condenser Lens ass'y.
2 Release 4 hooks **B** to take the Lens off from the holder.

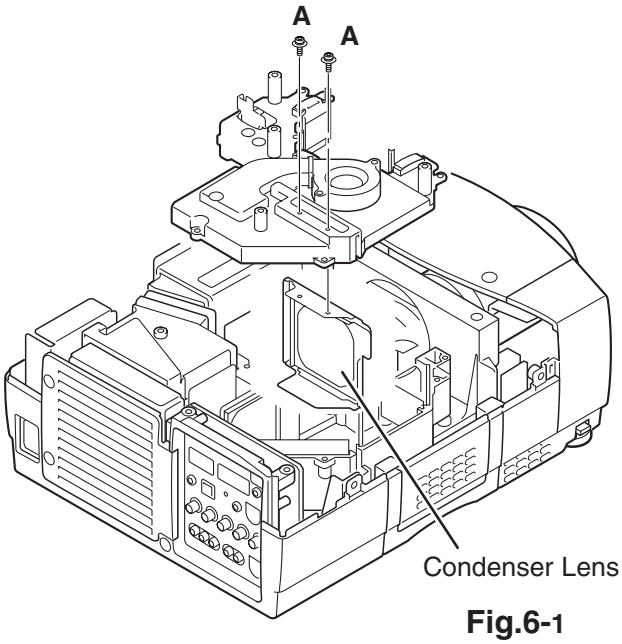


Fig.6-1

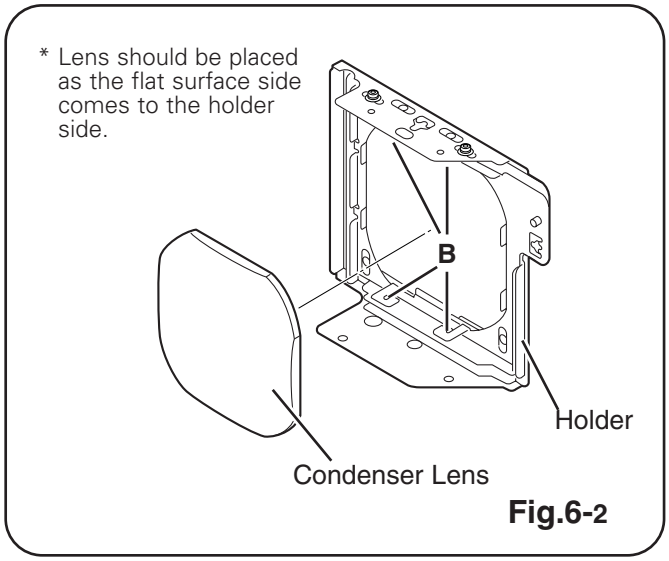


Fig.6-2

Locations and Directions

When the optical parts in the optical unit mounting or assembling, the parts must be mounted in the specified location and direction as shown in figure below.

Key No.	Description
1	Condenser lens (R)
2	Condenser lens
3	Condenser lens
4	Mirror (B)
5	Optical filter (UV cut)
6	Dichroic mirror (B
7	Dichroic mirror (G)
8	Mirror (W)
9	Condenser lens (IN)
10	PBS (prism beam splitter)
11	Integrator lens (OUT)
12	Integrator lens (IN)
13	Relay lens (IN)
14	Mirror (R)

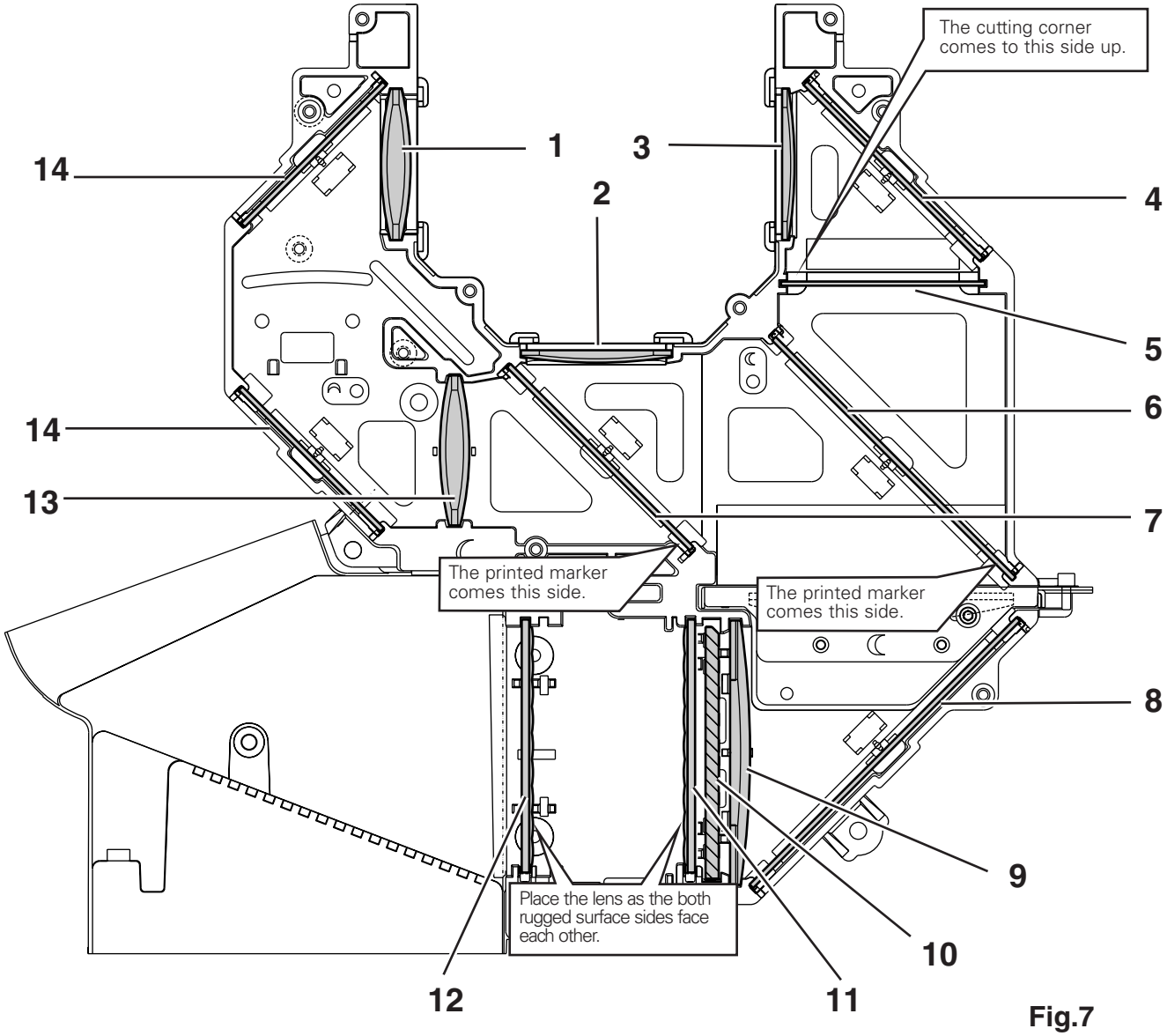


Fig.7

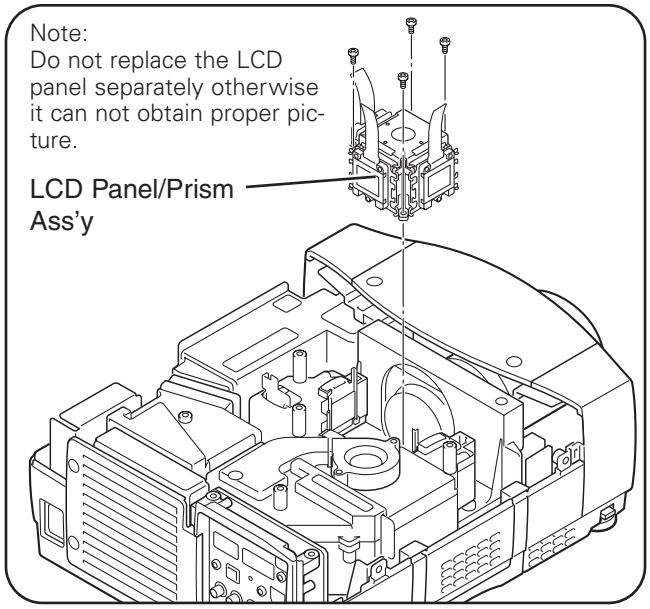
■ LCD Panel/Prism Ass'y Replacement

IMPORTANT NOTICE on LCD Panel/Prism Ass'y Replacement
LCD panels used for this model can not be replaced separately. Do not disassemble the LCD Panel/Prism Ass'y. These LCD panels are installed with precision at the factory. When replacing the LCD panel, should be replaced whole of the LCD panels and prism ass'y at once.
After replacing LCD Panel/Prism ass'y, please check the following adjustments.

- Check the "Condenser Lens Adjustment" and "Relay Lens Adjustment" following to chapter "Optical Adjustment".
- Check the "White Balance Adjustment" and "Common Centre Adjustment" following to chapter "Electrical Adjustment".
- Check the white uniformity on the screen.
  If you find the color shading, please adjust the white uniformity by using the proper computer and "Color Shading Correction" software supplied separately.

LCD Panel/Prism Ass'y removal

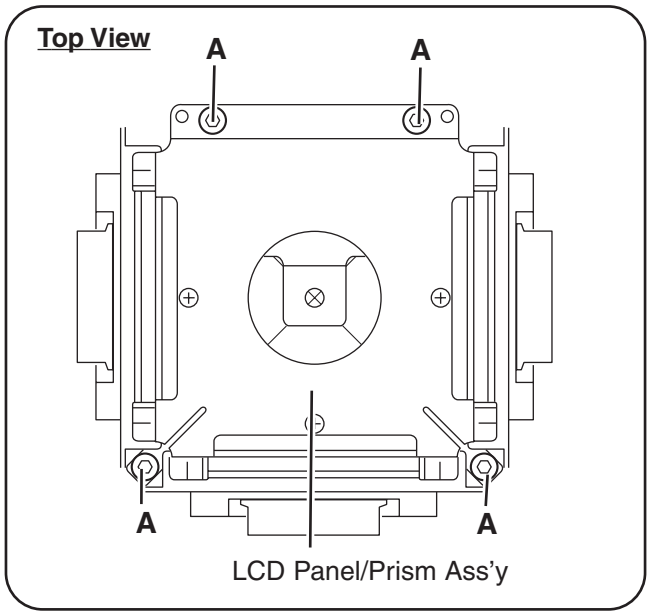
1 Remove the cabinet top and main board following to "Mechanical Disassemblies".
2 Remove 4 screws by using the 2.0 mm hex driver and take the LCD Panel/Prism ass'y off upward from the optical unit.



Note on LCD Panel/Prism Ass'y Mounting

After replacing or installing the LCD Panel/Prism ass'y, please make sure to obtain the best focus in both TELE and WIDE zoom. If the focus adjustment is required, please adjust the positioning of LCD Panel/Prism Ass'y by following the below procedure.

Mounting Procedure:
1 Loosen 4 screws **A** on the LCD Panel/Prism ass'y with 2.0 mm hex driver.
2 Turn the projector on and project the image with WIDE zoom, and adjust the FOCUS control to obtain the best focus.
3 Turn the ZOOM control to the TELE position.
4 Move the LCD Panel/Prism Ass'y backward or forward (about 0mm ~ 0.8mm) to obtain the proper focus. Confirm the focus at TELE and WIDE zoom.
5 Tighten 4 screws **A** to fix the LCD Panel/Prism ass'y.

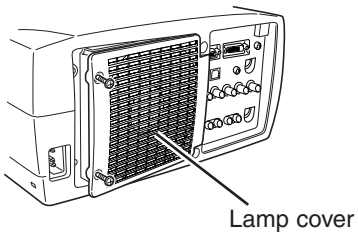


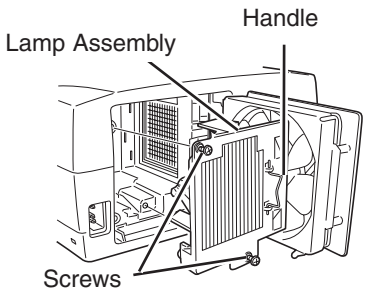
■ Lamp Replacement

WARNING:
- For continued safety, replace with a lamp assembly of the same type.
- Allow the projector to cool for at least 45 minutes before you open the lamp cover. The inside of the projector can become very hot.
- Do not drop the lamp module or touch the glass bulb! The glass can shatter and cause injury.

ORDER REPLACEMENT LAMP

Type No.	Service Parts No.
TLPLX40	610 297 3891





Procedure

1 Turn off the projector and disconnect the AC cord. Allow the projector to cool for at least 45 minutes.
2 Loosen 2 screws with a screwdriver and open the lamp cover.
3 Loosen 2 screws and pull out the lamp assembly by grasping the handle.
4 Replace the lamp assembly securely and tighten 2 screws.
5 Close the lamp cover and tighten 2 screws.
6 Connect the AC cord to the projector and turn on.

7 Reset the Lamp Replace Counter, see below explanation.

Note:
- Do not reset the Lamp Replace Counter, except after lamp is replaced.
- The projector can not be turned-on with lamp cover removed, because when the lamp cover is removed, the interlock switch is also released to switch off the mains power for safety.

How to reset Lamp Replace Counter

1 Turn the projector on, and press the **MENU** button and the on-screen menu will appear. Press the **POINT LEFT/RIGHT** buttons to move a red frame pointer to SETTING menu icon.
2 Press the **POINT DOWN** button to move a red frame pointer to “Lamp counter reset” and then press the **SELECT** button. The message “Lamp replace counter reset?” is displayed. Move the pointer to [Yes] and the press the **SELECT** button.
3 Another confirmation dialog box appears and select [Yes] to reset Lamp Replace Counter .

Please refer to the owners manual for further information.

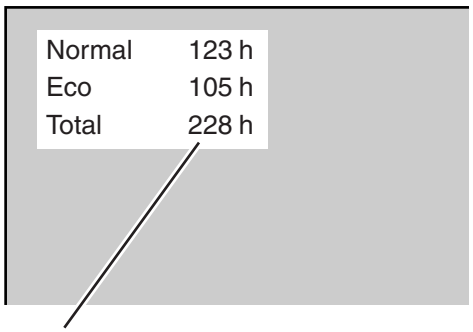
Recommendation

Should the air filter become clogged with dust particles, it will reduce the cooling fan’s effectiveness and may result in internal heat build up and short lamp life. We recommend cleaning the air filter after the projection lamp is replaced.
Refer to “Air Filter Cleaning”.

How to check Lamp Replace Counter

The LAMP REPLACEMENT indicator will illuminate when the Lamp Replace Counter reaches 1000 hours. This is to indicate that lamp replacement is required.

You can check the lamp replace counter following to below procedure.
1 Press and hold the pointer **UP** on the projector for more than 20 seconds.
2 The Lamp replace Counter is displayed on top left corner of the screen briefly.



Lamp replace counter data

■ Optical Adjustments

Before taking optical adjustments below, remove the Cabinet Top and Main Board following to the “Mechanical Disassemblies”
Adjustments require a 2.0mm hex wrench and a slot screwdriver.
Note: Do not disconnect connectors K8L, K8X, K8D, K8G and K8E on the main board, because the projector can not turn on due to operate the power failure protection.

Contrast adjustment

[Before Adjustment]
- Input a 100% of black raster signal.

[R/G/B-CONTRAST ADJUSTMENT]

1 Loosen a screw **A** (**Fig.1-1/1-2**) on the polarized glass mounting base which you intend to adjust.
2 Turn the polarized glass mounting base as shown in **Fig.1-1** to obtain the darkest brightness on the screen.
3 Tighten the screw **A** to fix the polarized glass mounting base.

Repeat steps 1 to 3 for remaining polarized glasses.

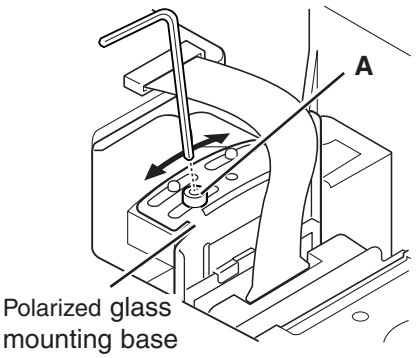


Fig.1-1

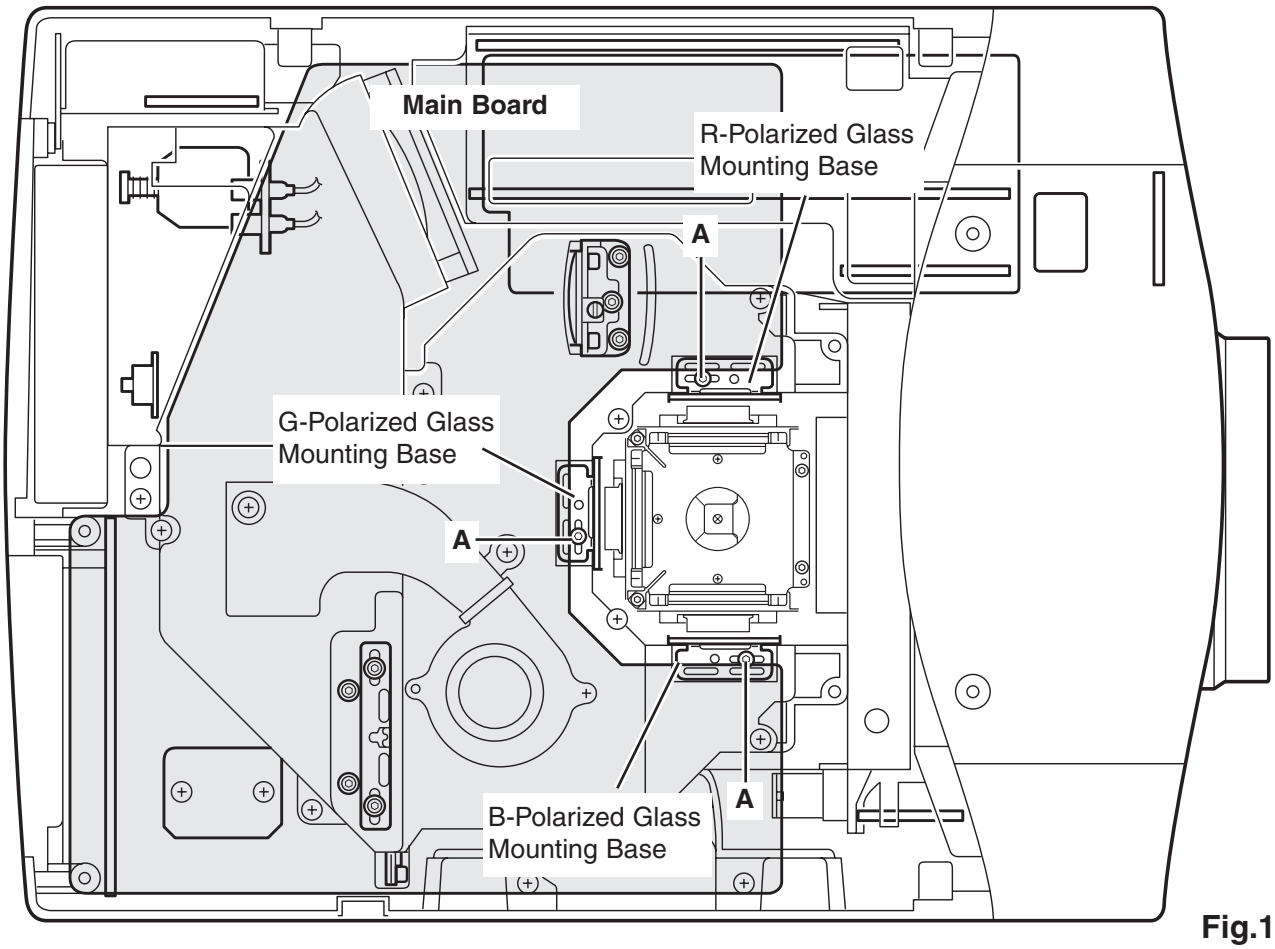


Fig.1-2

Condenser Lens adjustment

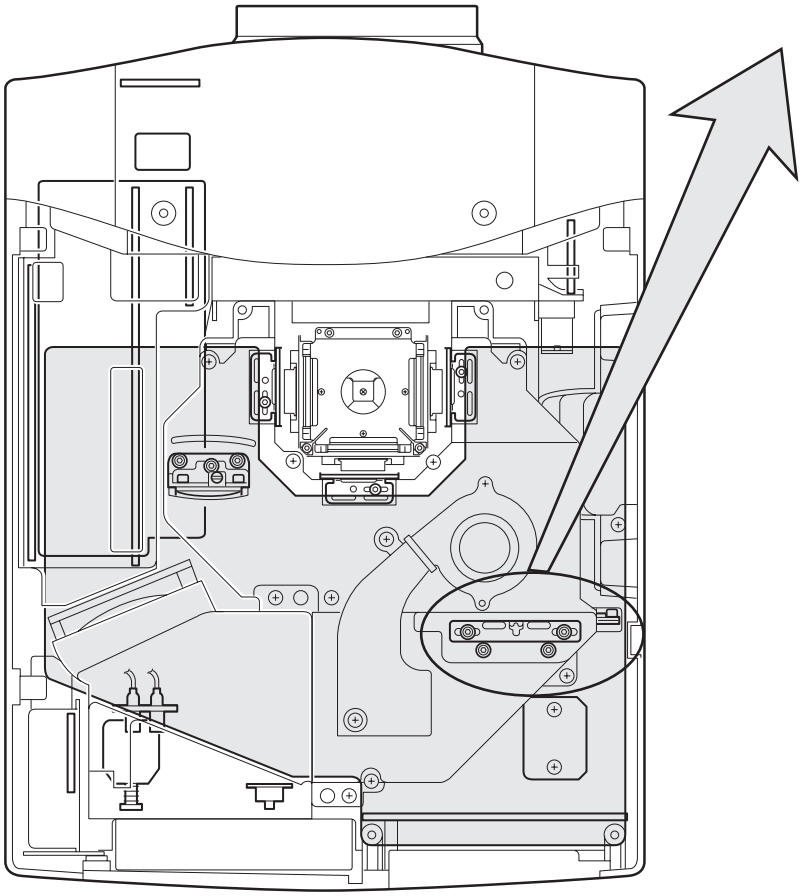
1 Turn the projector on by a state of without FPC cables.

2 Adjust the adjustment base of condenser lens ass'y to make color uniformity in white.

1) If the shading appears on the left or right of the screen as shown in **Fig.2-1**, loosen 2 screws **A** with the 2.0mm hex driver, and adjust the slot **B** to make color uniformity in green by using a slot screwdriver.
2) If the shading appears on the top or bottom of the screen as shown in **Fig.2-2**, loosen 1 screw **C** with the 2.0mm hex driver, and adjust the slot **D** to make color uniformity in green by using a slot screwdriver

3 Tighten screws **A** and **C** to fix the Condenser lens unit.

Note:
The relay lens adjustment must be carried out after completing this adjustment.



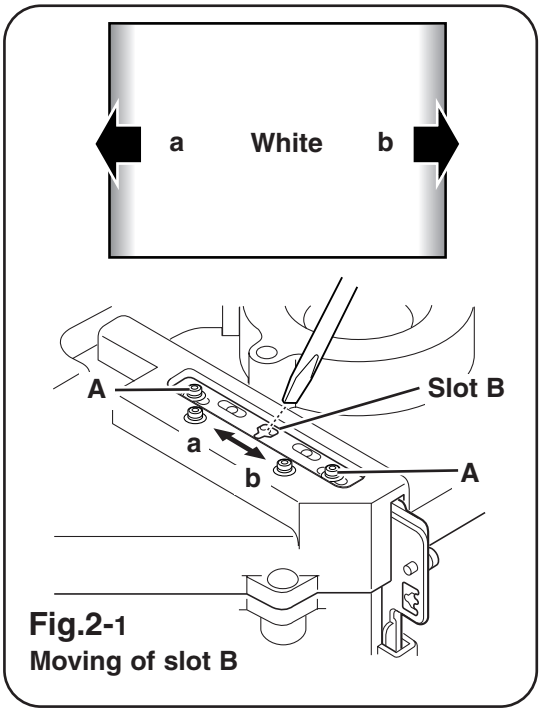


Fig.2-1
Moving of slot B

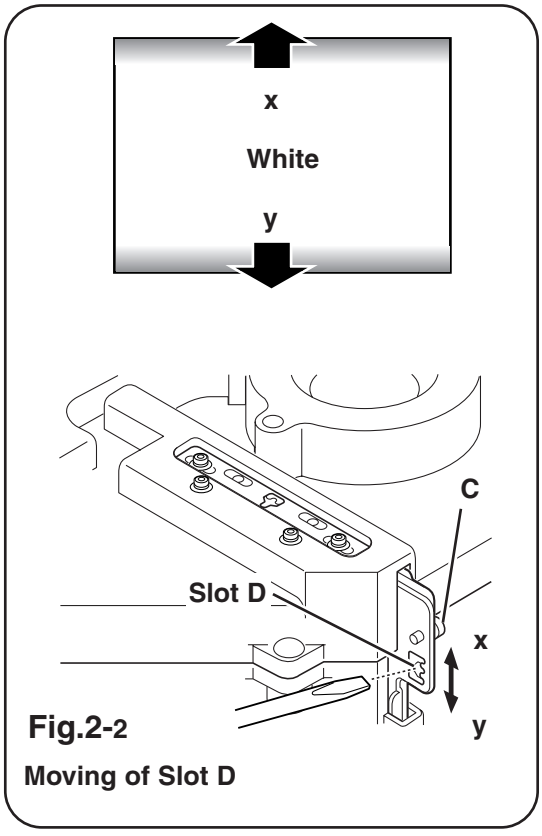
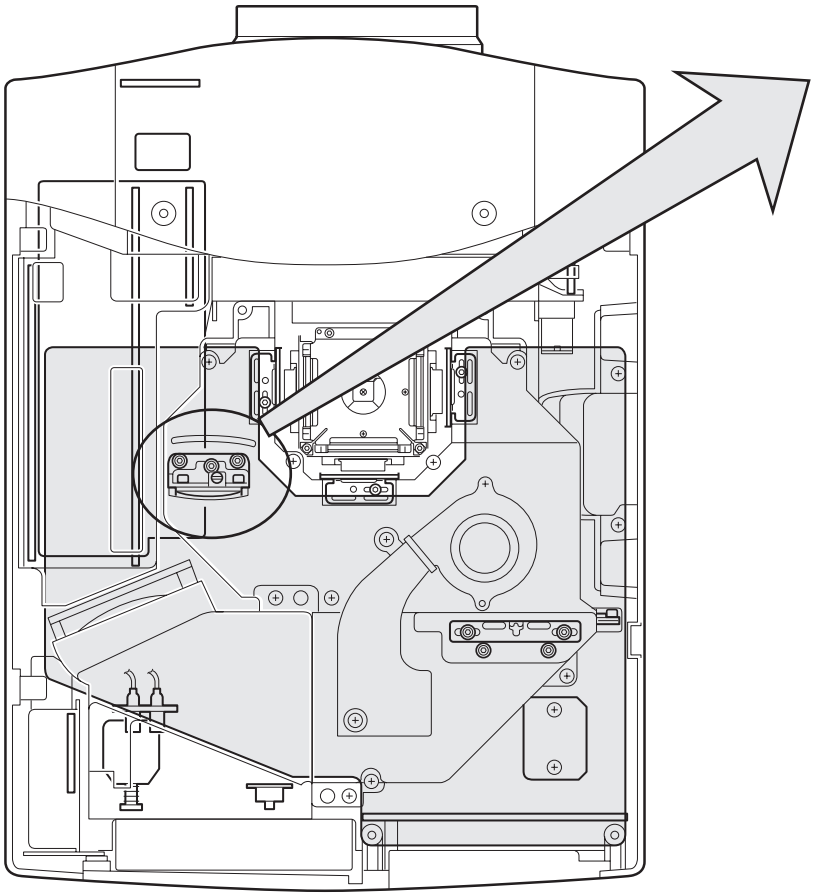


Fig.2-2
Moving of Slot D

Relay lens-Out adjustment

1 Turn the projector on by a state of without FPC cables.
2 Adjust the adjustment base of relay lens ass'y to make color uniformity in white.
1) If the cyan bar appears on the left or right of the screen as shown in **Fig.4-1**, loosen 1 screw **A** with the 2.0mm hex driver, and adjust the slot **B** to make color uniformity in white by using a slot screwdriver.
2) If the cyan bar appears on the top or bottom of the screen as shown in **Fig.4-2**, loosen 2 screws **C** with the 2.0mm hex driver, and adjust the screw **D** to make color uniformity in white by using a slot screwdriver.
3 Tighten the screws **A** and **C** to fix the relay lens unit.



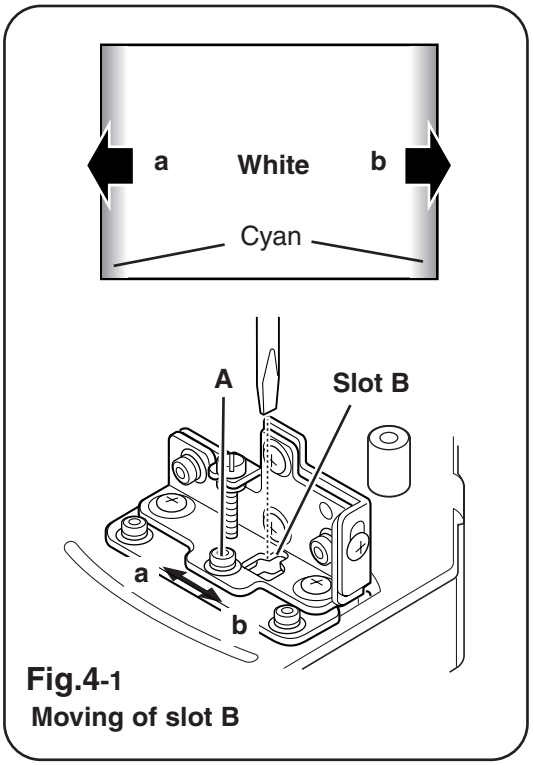


Fig.4-1
Moving of slot B

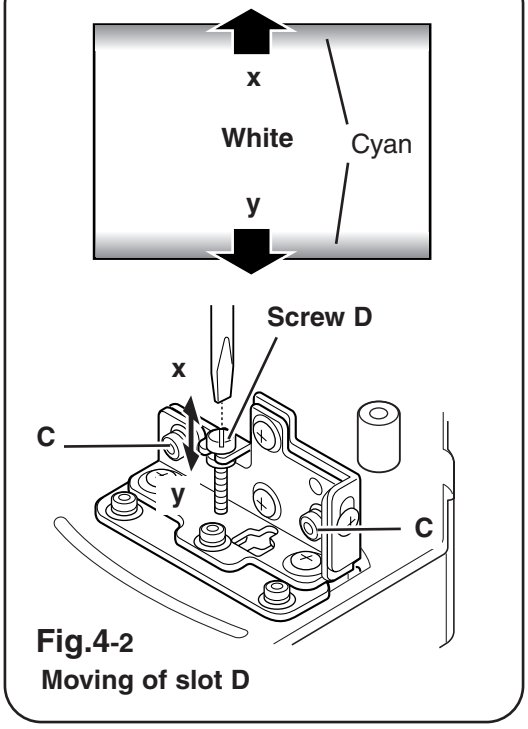


Fig.4-2
Moving of slot D

■ Electrical Adjustments

● Service Adjustment Menu Operation

To enter the service mode

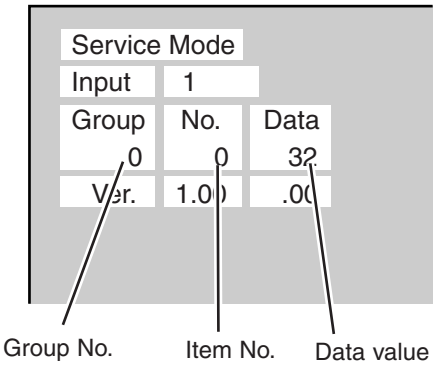
To enter the “Service Mode”, press and hold the **MENU** and **IMAGE button** on the projector at the same time for more than 3 seconds. The service menu appears on the screen as follows.

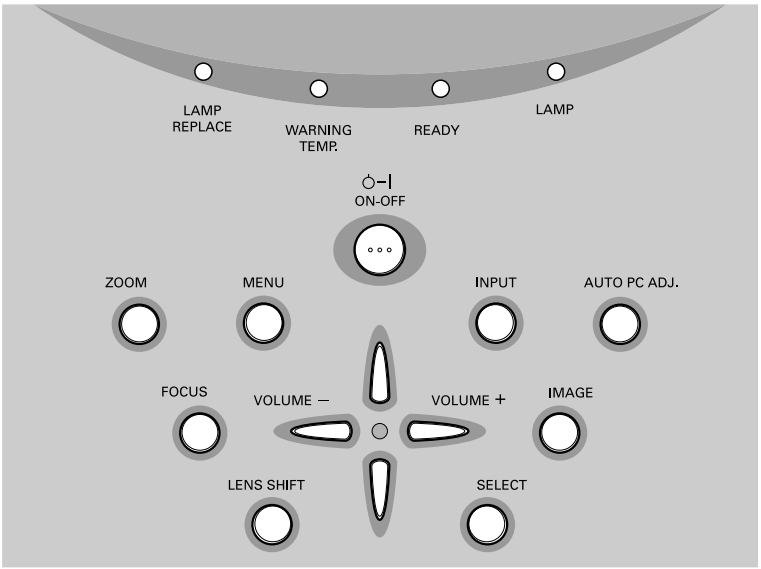
To adjust service data

Select the adjustment group no. by pressing the **MENU (+)** or **IMAGE (-) button** , and select the adjustment item no. by pressing the pointer **UP** or **DOWN button**, and change the data value by pressing the **VOLUME –** or **VOLUME + button**. Refer to the “Service Adjustment Data Table” for further description of adjustment group no., item no. and data value.

To exit the service mode

To exit the service mode, press the **POWER ON-OFF button** on the projector or remote control unit.





● Memory IC Replacement

IC808 on the main board stores the data for the service adjustments, and should not be replaced except for the case of defective device.
If replaced, it should be performed the re-adjustments following to the “Electrical Adjustments”.
The data of lamp replacement monitor timer is stored in the IC808.
Please note that the lamp replace counter is reset when the memory IC (IC808) is replaced.
(Lamp replace counter can not be set to the previous value.)

● Caution to memory IC replacement

When IC808 is replaced with new one, the CPU writes down the default data of the service adjustments to the replaced IC, refer to the service adjustment table. As these data are not the same data as factory shipped data, it should be required to perform the re-adjustments following to the “Electrical Adjustments”.
Please note that the lamp replace counter is reset.

● Caution of Main Board replacement (in the case IC808 is not defective)

When the main board is replaced, IC808 should be replaced with the one on previous main board. After replacement, it should be required to perform the re-adjustments following to the “Electrical Adjustments”.
In this case, the lamp replace counter can be kept the value as before.

● Circuit Adjustments

CAUTION: The each circuit has been made by the fine adjustment at factory. Do not attempt to adjust the following adjustments except requiring the readjustments in servicing otherwise it may cause loss of performance and product safety.

[Adjustment Condition]

● Input signal

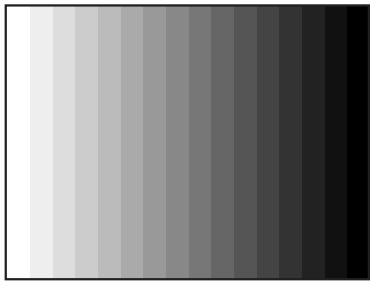
Video signal ..... 1.0Vp-p/75Ω terminated, 16 steps gray scale (Composite video signal)

Computer signal ..... 0.7Vp-p/75Ω terminated, 16 steps gray scale pattern (XGA)

Component Video signal ..... 0.7Vp-p/75Ω terminated, 16 steps gray scale (Component video signal with 480p or 1080i format)

● Picture control mode ..... "STANDARD" mode unless otherwise noted.

16 steps gray scale pattern



Note:

* Please refer to "Service Adjustment Menu Operation" for entering to the service mode and adjusting the service data.

Output Voltage adjustment

After replacing the Power Board readjust the Output voltage adjustment as follows.

1. Connect a digital voltmeter to pin 1 (+) of **K6A** and chassis ground (-).
2. Adjust the voltage by using **VR601** on the power board as following.

	AC Input	Reading
	230V	370 ±2Vdc
or	120V	340 ±2Vdc

Caution:
Be sure to connect the lamp when taking this adjustment.

+16V adjustment

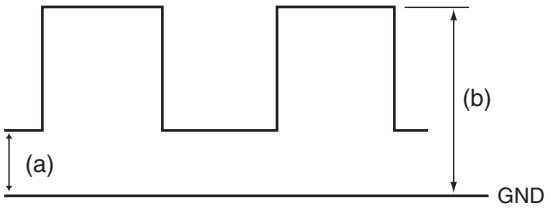
1. Receive the 16-step gray scale video signal with **Input 3 [VIDEO]** mode.
2. Connect a digital voltmeter to pin 3 (+) of **CN6A** and chassis ground (-).
3. Adjust the voltage to be **15.8** ±0.1Vdc by using **VR681** on the power board.

Video Center adjustment

1. Receive the 16-step gray scale computer signal with **Input 1 [COMPUTER]** mode.
2. Enter the service mode.
3. Connect a digital voltmeter to test point "**TP531**" (+) and chassis ground (-).
4. Select group no. "**5**", item no. "**1**" and change data value to adjust the voltage to be **7.50** ±0.1Vdc.
5. Connect a digital voltmeter to test point "**TP501**" (+) and chassis ground (-).
6. Select item no. "**0**" and change data value to adjust the voltage to be **7.50** ±0.1Vdc.
7. Connect a digital voltmeter to test point "**TP561**" (+) and chassis ground (-).
8. Select item no. "**2**" and change data value to adjust the voltage to be **7.50** ±0.1Vdc.

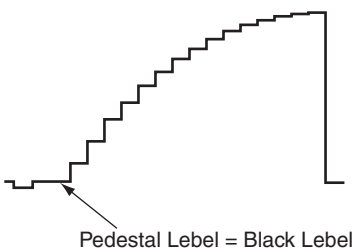
NRS adjustment

1. Receive the a6-step gray scale computer signal with **Input 1 [COMPUTER]** mode.
2. Enter the service mode.
3. Connect an oscilloscope to test point "**TP3671**" (+) and chassis ground (-).
4. Select group no. "**5**", item no. "**6**" and change data value to adjust amplitude "a" to be **2.0** ±0.1V.
5. Select item no. "**7**" and change data value to adjust amplitude "b" to be **6.5** ±0.1V.



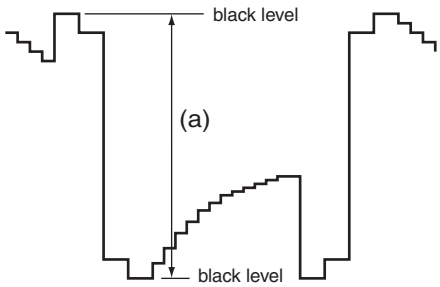
PC Pedestal adjustment

1. Receive the 16-step gray scale computer signal with **Input 1 [COMPUTER]** mode.
2. Enter the service mode.
3. Connect an oscilloscope to test point "**TP531**" (+) and chassis ground (-).
4. Select group no. "**5**", item no. "**16**" and change data value to adjust the pedestal level and black level to be the same level.
5. Connect an oscilloscope to test point "**TP501**" (+) and chassis ground (-).
6. Select item no. "**15**" and change data value to adjust the pedestal level and black level to be the same level.
7. Connect an oscilloscope to test point "**TP561**" (+) and chassis ground (-).
8. Select item no. "**17**" and change data value to adjust the pedestal level and black level to be the same level.



Black Level adjustment

1. Receive the 16-step gray scale computer signal with **Input 1 [COMPUTER]** mode.
2. Enter the service mode.
3. Connect an oscilloscope to test point "**TP531**" (+) and chassis ground (-).
4. Select group no. "**5**", item no. "**4**" and change data value to adjust amplitude "a" to be **10.0** ±0.1V.
5. Connect an oscilloscope to test point "**TP501**" (+) and chassis ground (-).
6. Select item no. "**3**" and change data value to adjust amplitude "a" to be **10.0** ±0.1V.
7. Connect an oscilloscope to test point "**TP561**" (+) and chassis ground (-).
8. Select item no. "**5**" and change data value to adjust amplitude "a" to be **10.0** ±0.1V.



PC Gain adjustment

1. Receive the 16-step gray scale computer signal with **Input 1 [COMPUTER]** mode.
2. Enter the service mode.
3. Connect an oscilloscope to test point "**TP531**" (+) and chassis ground (-).
4. Select group no. "**4**", item no. "**4**" and set data value to "600", and then decrease data to adjust waveform "a" to be minimum amplitude.
5. Connect an oscilloscope to test point "**TP501**" (+) and chassis ground (-).
6. Select item no. "**5**" and set data value to "600", and then decrease data to adjust waveform "a" to be minimum amplitude.
7. Connect an oscilloscope to test point "**TP561**" (+) and chassis ground (-).
8. Select item no. "**3**" and set data value to "580", and then decrease data to adjust waveform "a" to be minimum amplitude.

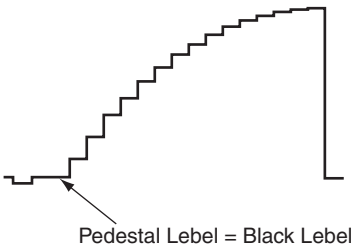
PC Gamma Shift adjustment

1. Receive the 16-step gray scale computer signal with **Input 1 [COMPUTER]** mode.
2. Enter the service mode.
3. Select group no. "**4**", item no. "**6**" and change data value to reproduce the proper gray scale picture on the screen.

HDTV Pedestal adjustment

[480p-PEDESTAL ADJUSTMENT]

1. Receive the 16-step gray scale component signal [480p] with **Input 3 [COMPONENT]** mode.
2. Enter the service mode.
3. Connect an oscilloscope to test point "**TP21G**" (+) and chassis ground (-).
4. Select group no. "**3**", item no. "**1**" and change data value to adjust the pedestal level and black level to be the same level.
5. Connect an oscilloscope to test point "**TP21B**" (+) and chassis ground (-).
6. Select group no. "**5**", item no. "**14**" and change data value to adjust the pedestal level and black level to be the same level.
7. Connect an oscilloscope to test point "**TP21R**" (+) and chassis ground (-).
8. Select item no. "**13** and change data value to adjust the pedestal level and black level to be the same level.



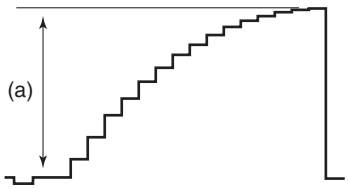
[1080i-PEDESTAL ADJUSTMENT]

1. Receive the 16-step gray scale component signal [1080i] with **Input 3 [COMPONENT]** mode.
2. Enter the service mode.
3. Connect an oscilloscope to test point "**TP21G**" (+) and chassis ground (-).
4. Select group no. "**3**", item no. "**1**" and change data value to adjust the pedestal level and black level to be the same level.
5. Connect an oscilloscope to test point "**TP21B**" (+) and chassis ground (-).
6. Select group no. "**5**", item no. "**14**" and change data value to adjust the pedestal level and black level to be the same level.
7. Connect an oscilloscope to test point "**TP21R**" (+) and chassis ground (-).
8. Select item no. "**13** and change data value to adjust the pedestal level and black level to be the same level.

HDTV A/D Input adjustment

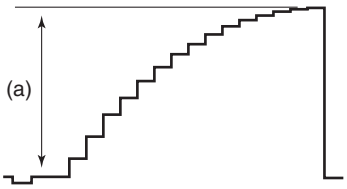
[480p-A/D INPUT ADJUSTMENT]

1. Receive the 16-step gray scale component signal [480p] with **Input 3 [COMPONENT]** mode.
2. Enter the service mode.
3. Connect an oscilloscope to test point "**TP21G**" (+) and chassis ground (-).
4. Select group no. "**3**", item no. "**0**" and change data value to adjust amplitude "a" to be **0.9** ±0.1V.
5. Connect an oscilloscope to test point "**TP21B**" (+) and chassis ground (-).
6. Select item no. "**4**" and change data value to adjust amplitude "a" to be **0.9** ±0.1V.
7. Connect an oscilloscope to test point "**TP21R**" (+) and chassis ground (-).
8. Select item no. "**2** and change data value to adjust amplitude "a" to be **0.9** ±0.1V.



[1080i-A/D INPUT ADJUSTMENT]

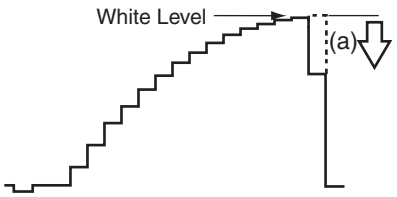
1. Receive the 16-step gray scale component signal [1080i] with **Input 3 [COMPONENT]** mode.
2. Enter the service mode.
3. Connect an oscilloscope to test point "**TP21G**" (+) and chassis ground (-).
4. Select group no. "**3**", item no. "**0**" and change data value to adjust amplitude "a" to be **0.9** ±0.1V.
5. Connect an oscilloscope to test point "**TP21B**" (+) and chassis ground (-).
6. Select item no. "**4**" and change data value to adjust amplitude "a" to be **0.9** ±0.1V.
7. Connect an oscilloscope to test point "**TP21R**" (+) and chassis ground (-).
8. Select item no. "**2** and change data value to adjust amplitude "a" to be **0.9** ±0.1V.



Note: This adjustment should be done after HDTV Pedestal adjustment.

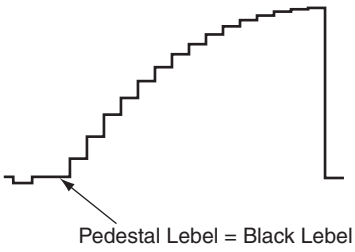
HDTV Gain adjustment

1. Receive the 16-step gray scale component signal [1080i] with **Input 3 [COMPONENT]** mode.
2. Enter the service mode.
3. Connect an oscilloscope to test point "**TP531**" (+) and chassis ground (-).
4. Select group no. "**4**", item no. "**4**" and set data value to "600", and then decrease data to adjust waveform "a" to be minimum amplitude.
5. Connect an oscilloscope to test point "**TP501**" (+) and chassis ground (-).
6. Select item no. "**5**" and set data value to "600", and then decrease data to adjust waveform "a" to be minimum amplitude.
7. Connect an oscilloscope to test point "**TP561**" (+) and chassis ground (-).
8. Select item no. "**3**" and set data value to "600", and then decrease data to adjust waveform "a" to be minimum amplitude.



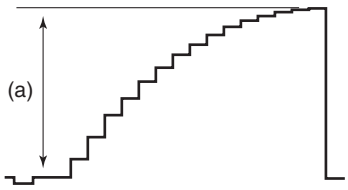
VIDEO Pedestal adjustment

1. Receive the 16-step gray scale video signal with **Input 3 [VIDEO]** mode.
2. Enter the service mode.
3. Connect an oscilloscope to test point "**TP4151G**" (+) and chassis ground (-).
4. Select group no. "**3**", item no. "**1**" and change data value to adjust the pedestal level and black level to be the same level.
5. Connect an oscilloscope to test point "**TP4151B**" (+) and chassis ground (-).
6. Select group no. "**5**", item no. "**14**" and change data value to adjust the pedestal level and black level to be the same level.
7. Connect an oscilloscope to test point "**TP4151R**" (+) and chassis ground (-).
8. Select item no. "**13** and change data value to adjust the pedestal level and black level to be the same level.



VIDEO A/D Input adjustment

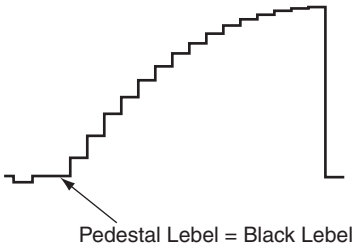
1. Receive the 16-step gray scale video signal with **Input 3 [VIDEO]** mode.
2. Enter the service mode.
3. Connect an oscilloscope to test point "**TP4151G**" (+) and chassis ground (-).
4. Select group no. "**3**", item no. "**0**" and change data value to adjust amplitude "a" to be **0.8** ±0.1V.
5. Connect an oscilloscope to test point "**TP4151B**" (+) and chassis ground (-).
6. Select item no. "**4**" and change data value to adjust amplitude "a" to be **0.8** ±0.1V.
7. Connect an oscilloscope to test point "**TP4151R**" (+) and chassis ground (-).
8. Select item no. "**2** and change data value to adjust amplitude "a" to be **0.8** ±0.1V.



Note: This adjustment should be done after VIDEO Pedestal adjustment.

A/D Offset adjustment

1. Receive the 16-step gray scale video signal with **Input 3 [VIDEO]** mode.
2. Enter the service mode.
3. Connect an oscilloscope to test point "**TP531**" (+) and chassis ground (-).
4. Select group no. "**6**", item no. "**11**" and change data value to adjust the pedestal level and black level to be the same level.
5. Connect an oscilloscope to test point "**TP501**" (+) and chassis ground (-).
6. Select item no. "**12**" and change data value to adjust the pedestal level and black level to be the same level.
7. Connect an oscilloscope to test point "**TP561**" (+) and chassis ground (-).
8. Select item no. "**10** and change data value to adjust the pedestal level and black level to be the same level.



Video Gain adjustment

1. Receive the 16-step gray scale video signal with **Input 3 [VIDEO]** mode.
2. Enter the service mode.
3. Connect an oscilloscope to test point "**TP531**" (+) and chassis ground (-).
4. Select group no. "**4**", item no. "**4**" and set data value to "600", and then decrease data to adjust waveform "a" to be minimum amplitude.
5. Connect an oscilloscope to test point "**TP501**" (+) and chassis ground (-).
6. Select item no. "**5**" and set data value to "600", and then decrease data to adjust waveform "a" to be minimum amplitude.
7. Connect an oscilloscope to test point "**TP561**" (+) and chassis ground (-).
8. Select item no. "**3**" and set data value to "580", and then decrease data to adjust waveform "a" to be minimum amplitude.

Video Gamma Shift adjustment

1. Receive the 16-step gray scale video signal with **Input 3 [VIDEO]** mode.
2. Enter the service mode.
3. Select group no. "**4**", item no. "**6**" and change data value to reproduce the proper gray scale picture on the screen.

Common Center adjustment

1. Receive the 16-step gray scale computer signal with **Input 1 [COMPUTER]** mode.
2. Enter the service mode.
3. Project only green light component to the screen.
4. Select group no. "**5**", item no. "**11**" and change data value to obtain the minimum flicker on the screen.
5. Project only blue light component to the screen.
6. Select item no. "**12**" and change data value to obtain the minimum flicker on the screen.
7. Project only red light component to the screen.
8. Select item no. "**10**" and change data value to obtain the minimum flicker on the screen.

White Balance adjustment

[PC WHITE BALANCE ADJUSTMENT]

1. Receive the 16-step gray scale computer signal with **Input 1 [COMPUTER]** mode.
2. Enter the service mode.
3. Select group no. "**4**", item no. "**7**" (Red) or "**8**" (Blue), and change data values respectively to make a proper white balance.

[AV WHITE BALANCE ADJUSTMENT]

4. Receive the 16-step gray scale video signal with **Input 3 [VIDEO]** mode.
5. Enter the service mode.
6. Select group no. "**4**", item no. "**7**" (Red) or "**8**" (Blue), and change data values respectively to make a proper white balance.

Confirm that the same white balance is obtained in video and computer input.

NOTE ON WHITE UNIFORMITY ADJUSTMENT

If you find the color shading on the screen, please adjust the white uniformity by using the proper computer and "Color Shading Correction" software supplied separately.

● Service Adjustment Data Table

These initial values are the reference data written from the CPU ROM to memory IC when replaced new memory IC. The adjustment items indicated with "⁎" are required to readjust following to the "Electrical adjustments". Other items should be used with the initial data value.

No.	Adjustment Item	Initial Value	Range	Input source / Description
Group: 0 TC90A26				
0	Y-EQ_GAIN	3	0 ~ 3	
1	Y-EQ_N_C_LIM	3	0 ~ 3	
2	V-ENH_GAIN	4	0 ~ 7	
3	V_ENH_CORING	2	0 ~ 3	
4	NTSC443_SW	1	0 ~ 1	Input signal setting 0:NTSC4.43 1:PAL60 (Only effective for NTSC4.43 signal inputs)
Group: 1 uPD64082				
0	NRMD	0	0 ~ 3	
1	HDP	4	0 ~ 7	
2	CDL	4	0 ~ 7	
3	DYCOR	4	0 ~ 15	
4	DYGAIN	15	0 ~ 15	
5	DCCOR	2	0 ~ 15	
6	DCGAIN	13	0 ~ 15	
7	YNRK	0	0 or 1	
8	YNRINV	0	0 or 1	
9	YNRLIM	0	0 ~ 3	
10	CNRK	0	0 or 1	
11	CNRINV	0	0 or 1	
12	CNRLIM	0	0 ~ 3	
13	VAPGAIN	2	0 ~ 15	
14	VAPINV	2	0 ~ 15	
15	YPFT	3	0 ~ 3	
16	YPFG	9	0 ~ 15	
17	V1PSEL	3	0 ~ 3	
18	VEGSEL	3	0 ~ 3	
19	CC3N	0	0 or 1	
20	SELD2FH	1	0 or 1	
21	SELDFL	1	0 or 1	
22	YHCOR	1	0 ~ 3	
23	HPLLFS	1	0 or 1	
24	PLLFG	1	0 or 1	
25	KILR	3	0 ~ 15	
26	HSSL	12	0 ~ 15	
27	VSSL	3	0 ~ 15	
28	BGPS	7	0 ~ 15	
29	BGPW	3	0 ~ 15	
Group: 2 TB1274				
0	TINT	32	0 ~ 63	
1	SHP_EQ	2	0 ~ 3	
2	SHP_FO	2	0 ~ 3	
3	SHP_GAIN	8/8/8/8/8/8/8	0 ~ 15	VideoNT/ PAL,PALM,PALN/SECAM,BW60,BW50/ NT443/ PAL60/ S-Video/YCbCr
4	Y_OUT_LEVEL 0.7V	31/32/32/32/32 32/32/32/32/32/32	0 ~ 63	VideoNT/ NT443/ PAL,PALM,PALN/ PAL60/ SECAM,BW S-VideoNT,BW/ NT443/ PAL,PALM,PALN/ PAL60/ SECAM/ YCbCr
5	C_OUT_LEVEL 0.6V	12/12/15/15/22 12/12/15/15/22/18/20	0 ~ 63	VideoNT/ NT443/ PAL,PALM,PALN/ PAL60/ SECAM,BW S-VideoNT,BW/ NT443/ PAL,PALM,PALN/ PAL60/ SECAM/480i/575i
6	Y_DELAY	5/5/4/4/4 4/4/3/3/4	0 ~ 15	Video NT,BW60/ PAL,PALM,PALN,BW50/ SECAM/NT443/PAL60 S-Video NT,BW60/PAL,PALM,PALN,BW50/ SECAM/ NT443/ PAL60
7	COL_SYS	-	-	
8	X'TAL	-	-	
9	NOISE_DET	-	-	Read Only
10	V_FREQ	-	-	
11	Vert. Std	-	-	
12	CID	-	-	
13	VSIG	-	-	
14	MVM	0	0 or 1	
15	AFC_GAIN	1	0 ~ 3	
16	SECAM_GP	7	0 ~ 7	
Group: 3 CXA2101				
0	PICTURE	15/25/25	0 ~ 63	NT,PAL,SECAM,NT443,PALM,PALN,480i,575i/ 480p,575p/ 1080i,1035i,720p ⁎ A/D Input adjustment [G]
1	BRIGHT	50/50/50	0 ~ 63	NT,PAL,SECAM,NT443,PALM,PALN,480i,575i/ 480p,575p/ 1080i,1035i,720p ⁎ Pedestal adjustment [G]
2	R_DRIVE	31/31/31	0 ~ 63	NT,NT443,PAL,PALM,PALN,480i,575i/ 480p,575p/ 1080i,1035i,720p ⁎ A/D Input adjustment [R]
3	G_DRIVE	31	0 ~ 63	

No.	Adjustment Item	Initial Value	Range	Input source / Description
4	B_DRIVE	31/31/31	0 ~ 63	NT,NT443,PAL,PALM,PALN,480i,575i/ 480p,575p/ 1080i,1035i,720p ※ A/D Input adjustment [B]
5	HSEP_SEL	1	0 ~ 1	
6	CR_OFFSET1	7	0 ~ 15	
7	CB_OFFSET1	7	0 ~ 15	
8	BLK_BOTTOM	15	0 ~ 15	
9	R-Y/R	12/13/6/6	0 ~ 15	NT,NT443,480i,480p/PAL,PALM,PALN,PAL60,SECAM,575i,575p/1035i/1080i,720p
10	R-Y/B	12/15/5/5	0 ~ 15	
11	G-Y/R	12/12/8/8	0 ~ 15	
12	G-Y/B	5/4/10/10	0 ~ 15	
13	MAT_OUT	0/0/0/1	0 ~ 3	
14	SYSTEM	0/1/2/2	0 ~ 3	NT,NT443,PAL,PALM,PALN,SECAM,480i,575i/ 480p,575p/ 1080i60,1035i,720p/1080i50
15	V_TC	2/1/1/0	0 ~ 3	
16	H_WIDTH	2/1/1/0	0 ~ 3	
17	HD_TC	1/1/0/0	0 ~ 3	
18	HS_MASK	0/1/1/1	0 ~ 1	
19	CTI_LEVEL	1/1/1/0/0	0 ~ 3	NT,NT443,PAL,PALM,PALN,SECAM/ 480i,575i/ 480p,575p/ 1080i60,1035i,720p/ 1080i50
20	SUB_SHP	2/2/1/1	0 ~ 3	NT,NT443,PAL,SECAM,PALM,PALN,480i,575i/ 480p,575p/ 1080i60,1035i,720p/ 1080i50
21	SHP_FO	3/3/3/3	0 ~ 3	
22	PRE_OVER	2/3/0/0	0 ~ 3	
23	LTI_LEVEL	1/1/0/0	0 ~ 3	NT,NT443,PAL,SECAM,PALM,PALN,480i,575i/ 480p,575p / 1080i60,1035i,720p/ 1080i50
24	D_PIC	0/0/1/1	0 ~ 3	NT,NT443,PAL,SECAM,PALM,PALN,480i,575i/ 480p,575p / 1080i60,1035i,720p/ 1080i50"
25	HUE	31/31	0 ~ 63	PAL,PALM,PALN,PAL60,SECAM/ 575i,575p adjutable only those mode.
26	SUB_COL	7/7/7/8/3/3	0 ~ 15	NT,NT443/PAL,PALM,PALN,PAL60,SECAM/480i,480p/575i,575p/1035i/1080i,720p
27	SUB_HUE	7/7/8/7/9/6	0 ~ 15	NT,NT443/PAL,PALM,PALN,PAL60,SECAM/480i,480p/575i,575p/1035i/1080i,720p
28	CINEMA CTI_LEVEL	0		
29	CINEMA LTI_LEVEL	0		
Group: 4 L3E07050				
0	B_SUB_BRT	0/0	0 ~ 1023	PC/DVI,AV
1	G_SUB_BRT	0/0	0 ~ 1023	
2	R_SUB_BRT	0/0	0 ~ 1023	
3	R_SUB_GAIN	367/390/300/420	0 ~ 1023	PC/AV/DVI/HD ※ Gain adjustment [R]
4	G_SUB_GAIN	367/390/300/420	0 ~ 1023	※ Gain adjustment [G]
5	B_SUB_GAIN	367/390/300/420	0 ~ 1023	※ Gain adjustment [B]
6	Standard G GAMMA SHIFT	350/390	0 ~ 1023	PC,DVI std/AV Std Center value 512 * Modify RGB data at the sane time when changing G data. ※
7	Standard R GAMMA SHIFT	350/390	0 ~ 1023	PC,DVI std/AV Std Center value 512 ※ White balance adj. [R] Gamma shift adjustment
8	Standard B GAMMA SHIFT	350/390	0 ~ 1023	PC,DVI std/AV Std Center value 512 ※ White balance adj. [B]
9	Standard GAMMA 0	0/0	0 ~ 1023	PC,DVI Standard / AV Standard
10	Standard GAMMA 1	160/145	0 ~ 1023	Read only
11	Standard GAMMA 2	274/263	0 ~ 1023	
12	Standard GAMMA 3	386/377	0 ~ 1023	
13	Standard GAMMA 4	477/471	0 ~ 1023	
14	Standard GAMMA 5	544/537	0 ~ 1023	
15	Standard GAMMA 6	611/604	0 ~ 1023	
16	Standard GAMMA 7	659/648	0 ~ 1023	
17	Standard GAMMA 8	700/684	0 ~ 1023	
18	Standard GAMMA 9	736/709	0 ~ 1023	
19	Standard GAMMA 10	770/737	0 ~ 1023	
20	Standard GAMMA 11	802/766	0 ~ 1023	
21	Standard GAMMA 12	840/804	0 ~ 1023	
22	Standard GAMMA 13	874/837	0 ~ 1023	
23	Standard GAMMA 14	926/902	0 ~ 1023	
24	Standard GAMMA 15	1023/1023	0 ~ 1023	
25	Real/Cinema G GAMMA SHIFT	506/506	385 ~ 639	PC,DVI Real / AV Cinema
26	Real/Cinema R GAMMA SHIFT	512/512	385 ~ 639	
27	Real/Cinema B GAMMA SHIFT	522/527	385 ~ 639	
28	Real/Cinema GAMMA 0	512/512	385 ~ 639	
29	Real/Cinema GAMMA 1	522/527	385 ~ 639	
30	Real/Cinema GAMMA 2	518/521	385 ~ 639	
31	Real/Cinema GAMMA 3	515/519	385 ~ 639	
32	Real/Cinema GAMMA 4	514/516	385 ~ 639	
33	Real/Cinema GAMMA 5	512/512	385 ~ 639	
34	Real/Cinema GAMMA 6	510/510	385 ~ 639	
35	Real/Cinema GAMMA 7	508/508	385 ~ 639	
36	Real/Cinema GAMMA 8	505/505	385 ~ 639	
37	Real/Cinema GAMMA 9	503/503	385 ~ 639	
38	Real/Cinema GAMMA 10	501/501	385 ~ 639	
39	Real/Cinema GAMMA 11	499/499	385 ~ 639	
40	Real/Cinema GAMMA 12	496/496	385 ~ 639	
41	Real/Cinema GAMMA 13	492/492	385 ~ 639	

No.	Adjustment Item	Initial Value	Range	Input source / Description
42	Real/Cinema GAMMA 14	488/488	385 ~ 639	
43	Real/Cinema GAMMA 15	512/512	385 ~ 639	
44	r_mid2_level	512	0 ~ 1023	_C9D
45	r_mid1_level	608	0 ~ 1023	_C9E
46	r_max_level	680	0 ~ 1023	_C9F
47	g_mid2_level	512	0 ~ 1023	_CA1
48	g_mid1_level	608	0 ~ 1023	_CA2
49	g_max_level	680	0 ~ 1023	_CA3
50	b_mid2_level	512	0 ~ 1023	_CA5
51	b_mid1_level	608	0 ~ 1023	_CA6
52	b_max_level	680	0 ~ 1023	_CA7
53	V-line Correction_R2	1	0 ~ 255	_C48
54	V-line Correction_G2	1	0 ~ 255	_C4D
55	V-line Correction_B2	1	0 ~ 255	_C52
Group: 5 DAC				
0	B_VIDEO_CENTER	125	0 ~ 255	dac1 ※ Video center adjustment [B]
1	G_VIDEO_CENTER	124	0 ~ 255	dac1 ※ Video center adjustment [G]
2	R_VIDEO_CENTER	125	0 ~ 255	dac1 ※ Video center adjustment [R]
3	REF_B	105	0 ~ 255	dac1 ※ Black level adjustment [B]
4	REF_G	108	0 ~ 255	dac1 ※ Black level adjustment [G]
5	REF_R	107	0 ~ 255	dac1 ※ Black level adjustment [R]
6	NRSB	42	0 ~ 255	NRS B ※ PSIG adjustment-1
7	NRSA	159	0 ~ 255	NRS A
8	--			※ PSIG adjustment-2
9	--			
10	R_V_COM	69	0 ~ 255	dac2 ※ Common center adjustment [R]
11	G_V_COM	73	0 ~ 255	dac2 ※ Common center adjustment [G]
12	B_V_COM	70	0 ~ 255	dac2 ※ Common center adjustment [B]
13	R_BLK_DC	115/110/115	0 ~ 255	dac3 video/1080i,1035i,720p/480p,525p ※ Pedestal adjustment [R]
14	B_BLK_DC	115/110/115	0 ~ 255	dac3 video/1080i,1035i,720p/480p,525p ※ Pedestal adjustment [B]
15	B_CLMP	30	0 ~ 255	dac4 ※ PC pedestal adjustment [B]
16	G_CLMP	30	0 ~ 255	dac4 ※ PC pedestal adjustment [G]
17	R_CLMP	30	0 ~ 255	dac4 ※ PC pedestal adjustment [R]
Group: 6 AD9883				
0	pll_divide	938/904	0 ~ 4095	adr01,02(7-4) 625line/525line
1	vco_range	0	0 ~ 3	adr03(7-6)
2	charge_pump_current	1/1	0 ~ 7	adr03(5-3) 625line/525line
3	ad_clk_phase	8/8	0 ~ 31	adr04(7-3) 625line/525line
4	clp_placement	128	0 ~ 255	adr05
5	clp_width	50	0 ~ 255	adr06
6	hsync_out_pulse_width	64	0 ~ 255	adr07
7	r_gain	255	0 ~ 255	adr08
8	g_gain	255	0 ~ 255	adr09
9	b_gain	255	0 ~ 255	adr0A
10	r_offset	60	0 ~ 128	adr0B(7-1) ※ Offset adjustment [R]
11	g_offset	60	0 ~ 128	adr0C(7-1) ※ Offset adjustment [G]
12	b_offset	60	0 ~ 128	adr0D(7-1) ※ Offset adjustment [B]
13	sync_reg	208	0 ~ 255	adr0E
14	clp_corst_pow	154	0 ~ 255	adr0F
15	clp_sel	0	0 ~ 7	adr10(2-0)
16	read_status	-	0 ~ 255	read_only adr14
17	ic_ver	-	0 ~ 255	read_only adr00
Group: 7 LP05				
0	LP05_R_GAIN_ud	128	0 ~ 255	
1	LP05_G_GAIN_ud	128	0 ~ 255	
2	LP05_B_GAIN_ud	128	0 ~ 255	
3	LP05_TURBO_GAIN_ud	18	0 ~ 255	
4	LP05_SHP_EN_SET_ud	805	0 ~ 4095	Set appurture compensation effective period.
5	LP05_SHP_EN_RST_ud	14	0 ~ 4095	Set appurture compensation effective period.
6	LP05_AB_ON_ud	0	0 ~ 3	Select appurture compensation effective period. 3: 3 point front/back 1: 2 point front/back0: 1 point front/back 2: Not selection
7	LP05_EGE_ud	0	0 ~ 3	Select Frequency characteristics data
Group: 10 Option				
0	Lamp Time Monitor	-	-	Read only
1	RS232C Baudrate	0	0 ~ 1	0: 19200bps 1: 9600bps
2	Shootout Mode	0	0 ~ 1	1: Shoot Out Mode Enable 0: Disable
3	Cooling Time	3	0 ~ 15	Set cooling period, 1: 30 sec. 3: 90 sec. 15: 450 sec. 0: continus
4	Hi-Land SW	0	0 ~ 255	0: Normal 1: Highland mode (Fan spin speed max.)
5	V-Douki SW	0	0 ~ 1	0: Syncronized Vertical 1: non-syncronized Vertical

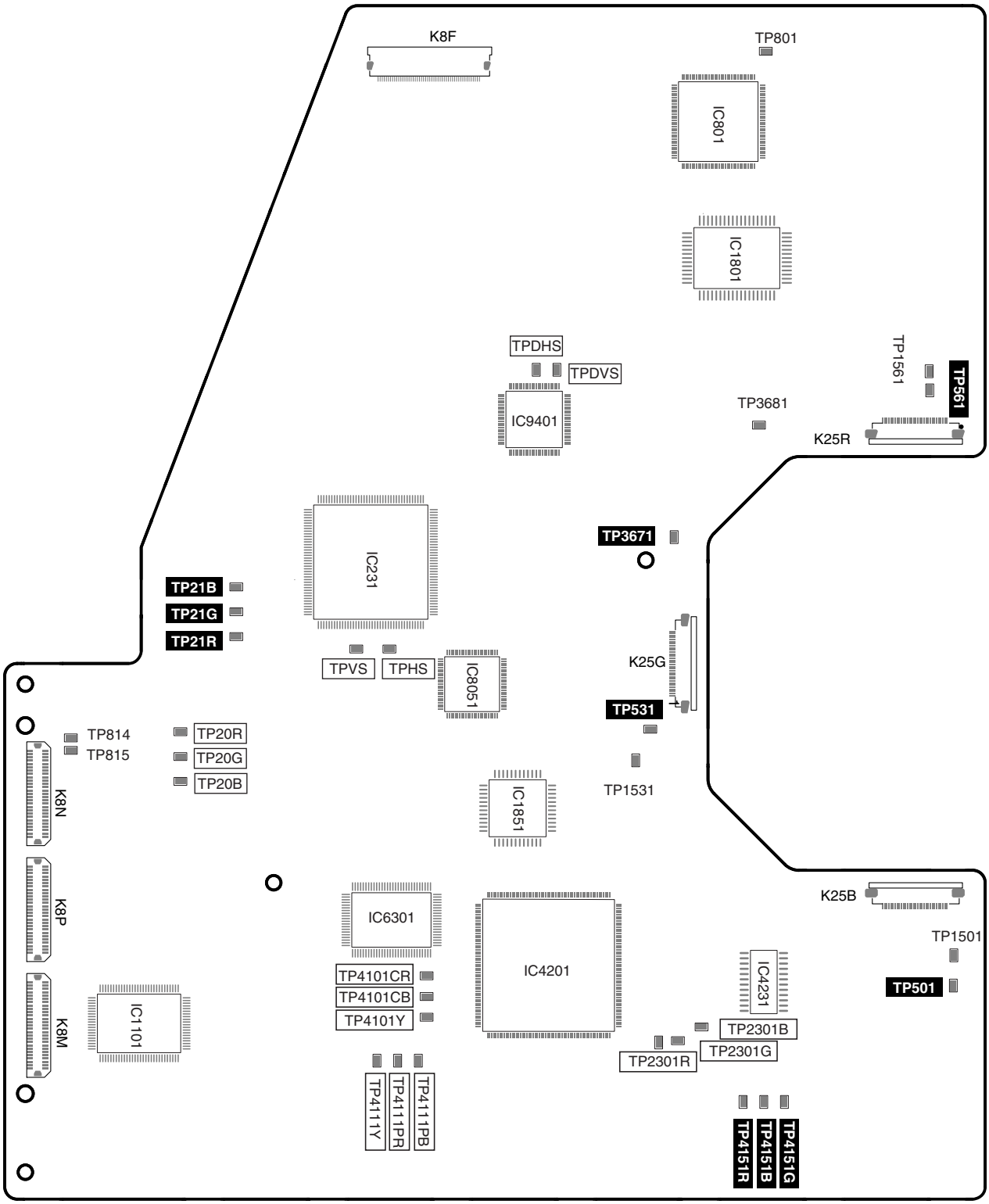
No.	Adjustment Item	Initial Value	Range	Input source / Description
6	Lamp-use time accumulated	-	-	Read only
7	Net Board Reset	1	0 ~ 1	0: Invalid , 1: Valid
8	Key Stone Option	0	0 ~ 1	0: Fixed, 1: Change with inpt signal
Group: 11 Fan Control				
0	FAN_TEMP_A_WARNING	46	30 ~ 100	Temerature to judge abnormal A (Not memorized) Inside projector
1	FAN_TEMP_B_WARNING	62	30 ~ 100	Temerature to judge abnormal B (Not memorized) Optical
2	FAN_TEMP_C_WARNING	18	0 ~ 100	Temerature to judge abnormal A (Not memorized)Detect the filter clogged
3	FAN_CONTROL_SW	0	0 or 1	0: Auto-FanControl 1: Manual
4	FAN_A_SPEED	174/250	0 ~ 255	This is effective when FAN_CONTROL_SW is set to "1".
5	FAN_B_SPEED	184/250	0 ~ 255	Normal/Eco mode
6	FAN_TEMP_A_MONI	-	-	Read only
7	FAN_TEMP_B_MONI	-	-	
8	FAN_TEMP_C_MONI			
9	FAN_PRESSURE	-	-	Read only
Group: 12 PC Real / AV Cinema				
0	PC Real Contrast	32	0 ~ 63	
1	PC Real Brightness	32	0 ~ 63	
2	PC Real Red	32	0 ~ 63	
3	PC Real Green	32	0 ~ 63	
4	PC Real Blue	32	0 ~ 63	
5	PC Real Gamma	8	0 ~ 15	
6	AV Cinema Contrast	32	0 ~ 63	
7	AV Cinema Brightness	32	0 ~ 63	
8	AV Cinema Color	32	0 ~ 63	
9	AV Cinema Tint	32	0 ~ 63	
10	AV Cinema Red	32	0 ~ 63	
11	AV Cinema Green	32	0 ~ 63	
12	AV Cinema Blue	32	0 ~ 63	
13	AV Cinema Sharpness	15	0 ~ 31	
14	AV Cinema Gamma	8	0 ~ 15	
15	AV Cinema N.R.	0	0 or 1	
16	AV Cinema PROGRESSIVE	1	0 or 1	
Group: 100 ICS_LP_data				
0	LP05_R5_VBLKPOL	0	0 ~ 1	R5=ADR133
1	LP05_R5_VBLKS	0	0 ~ 2047	Change value automatically according to selected signal.
2	LP05_R5_VBLKR	9/14/28/ 28/23/30/35	0 ~ 2047	NTSC & 480i / PAL & SECAM & 525i / 1035i & 1080i60 1080i50 / 720P / 480P / 575P
3	LP05_R6_HBLKPOL	0	0 ~ 1	R6=ADR134
4	LP05_R6_HBLKS	16	0 ~ 4095	Change value automatically according to selected signal.
5	LP05_R6_HBLKR	32	0 ~ 4095	NTSC & 480i / PAL & SECAM & 525i / 1035i & 1080i60 / 1080i50 / 720P / 480P / 575P
6	LP05_R7_CLPPOL	0	0 ~ 1	R7=ADR135
7	LP05_R7_CLPS	175/175/75/ 75/75/156/162	0 ~ 4095	Change value automatically according to selected signal.
8	LP05_R7_CLPR	270/270/160/ 155/185/260/290	0 ~ 4095	NTSC & 480i / PAL & SECAM & 525i / 1035i & 1080i60 / 1080i50 / 720P / 480P / 575P
9	LP05_R8_VOFFON	0/1	0 ~ 1	R8=ADR136
10	LP05_R8_VOFFS	0	0 ~ 2047	Change value automatically according to selected signal.
11	LP05_R8_VOFFR	0/0/20/20/10/7/7	0 ~ 2047	NTSC & 480i / PAL & SECAM & 525i / 1035i & 1080i60 / 1080i50 / 720P / 480P / 575P
12	LP05_R9_VBLK2POL	0	0 ~ 1	R9=ADR137
13	LP05_R9_VBLK2POS	16	0 ~ 2047	Change value automatically according to selected signal.
14	LP05_R9_VBLK2WID	32	0 ~ 2047	NTSC & 480i / PAL & SECAM & 525i / 1035i & 1080i60 / 1080i50 / 720P / 480P / 575P
15	LP05_RA_HBLK2POL	0	0 ~ 1	RA=ADR138
16	LP05_RA_HBLK2POS	0	0 ~ 4095	Change value automatically according to selected signal.
17	LP05_RA_HBLK2WID	300/300/127/ 120/185/230/265	0 ~ 4095	NTSC & 480i / PAL & SECAM & 525i / 1035i & 1080i60 1080i50 / 720P / 480P / 575P
18	ICS_R0_EnDLS	0	0 ~ 1	R0
19	ICS_R0_EnPLS	1	0 ~ 1	NTSC & 480i / PAL & SECAM & 525i / 1035i & 1080i60 / 1080i50 / 720P / 480P / 575P
20	ICS_R0_Func_Sel	0	0 ~ 1	
21	ICS_R0_Fbk_Sel	0	0 ~ 1	
22	ICS_R0_Fbk_Pol	0	0 ~ 1	
23	ICS_R0_Ref_Pol	1	0 ~ 1	
24	ICS_R0_PD_Pol	0	0 ~ 1	
25	ICS_R0_Pden	1	0 ~ 1	
26	ICS_R1_PSD	2	0 ~ 3	R1
27	ICS_R1_PFD	6	0 ~ 7	NTSC & 480i / PAL & SECAM & 525i / 1035i & 1080i60 / 1080i50 / 720P / 480P / 575P
28	ICS_R3_FBD	2432	0 ~ 8191	R3_R2
				NTSC & 480i / PAL & SECAM & 525i / 1035i & 1080i60 / 1080i50 / 720P / 480P / 575P
29	ICS_R4_Fil_Sel	0	0 ~ 1	R4
30	ICS_R4_DPA_OS	0	0 ~ 63	NTSC & 480i / PAL & SECAM & 525i / 1035i & 1080i60 / 1080i50 / 720P / 480P / 575P

No.	Adjustment Item	Initial Value	Range	Input source / Description
31	ICS_R5_Mask_Rev	0	0 ~ 63	R5
32	ICS_R5_DPA_Res	0	0 ~ 3	NTSC & 480i / PAL & SECAM & 525i / 1035i & 1080i60 / 1080i50 / 720P / 480P / 575P
33	ICS_R6_Out_Scl	0	0 ~ 3	R6
34	ICS_R6_Ck2_Inv	0	0 ~ 1	NTSC & 480i / PAL & SECAM & 525i / 1035i & 1080i60 / 1080i50 / 720P / 480P / 575P
35	ICS_R6_OE_F	1	0 ~ 1	
36	ICS_R6_OE_T2	0	0 ~ 1	
37	ICS_R6_OE_P2	0	0 ~ 1	
38	ICS_R6_OE_Tck	1	0 ~ 1	
39	ICS_R6_OE_Pck	0	0 ~ 1	
40	ICS_R7_In_Sel	0	0 ~ 1	R7
41	ICS_R7_Osc_Div	0	0 ~ 127	NTSC & 480i / PAL & SECAM & 525i / 1035i & 1080i60 / 1080i50 / 720P / 480P / 575P
42	ICS_R8_PLL	5	0 ~ 15	R8
43	ICS_R8_DPA	10	0 ~ 15	NTSC & 480i / PAL & SECAM & 525i / 1035i & 1080i60 / 1080i50 / 720P / 480P / 575P
Group: 500 ADC				
0	ADC R-OFFSET	128	0 ~ 255	
1	ADC G-OFFSET	128	0 ~ 255	
2	ADC B-OFFSET	128	0 ~ 255	
3	ADC R-GAIN	255	0 ~ 255	
4	ADC G-GAIN	255	0 ~ 255	
5	ADC B-GAIN	255	0 ~ 255	
Group: 510 NTSC Gakaku				
0	NTSC TOTAL DOTS	905	0 ~ 2048	Not used
1	NTSC DISP DOTS	1412	0 ~ 2048	NT
2	NTSC H BACK PORCTH	295	0 ~ 2048	
3	NTSC V BACK PORCTH	41	0 ~ 2048	
4	NTSC DISP LINE	456	0 ~ 2048	
5	NTSC CLAMP	0	0 ~ 2048	
Group: 511 PAL Gakaku				
0	PAL TOTAL DOTS	939	0 ~ 2048	Not used
1	PAL DISP DOTS	1430	0 ~ 2048	PAL
2	PAL H BACK PORCTH	296	0 ~ 2048	
3	PAL V BACK PORCTH	52	0 ~ 2048	
4	PAL DISP LINE	534	0 ~ 2048	
5	PAL CLAMP	0	0 ~ 2048	
Group: 512 HDTV 1080i-60 Gakaku				
0	TOTAL DOTS	1203	0 ~ 2048	
1	DISP DOTS	1024	0 ~ 2048	1080i60
2	H BACK PORCTH	145	0 ~ 2048	
3	V BACK PORCTH	53	0 ~ 2048	
4	DISP LINE	1050	0 ~ 2048	
5	CLAMP	7	0 ~ 2048	
Group: 513 HDTV 1080i-50 Gakaku				
0	TOTAL DOTS	1444	0 ~ 2048	
1	DISP DOTS	1024	0 ~ 2048	1080i50
2	H BACK PORCTH	144	0 ~ 2048	
3	V BACK PORCTH	53	0 ~ 2048	
4	DISP LINE	1052	0 ~ 2048	
5	CLAMP	7	0 ~ 2048	
Group: 514 HDTV 1035i Gakaku				
0	TOTAL DOTS	1203	0 ~ 2048	
1	DISP DOTS	1024	0 ~ 2048	1035i (tempolary)
2	H BACK PORCTH	144	0 ~ 2048	
3	V BACK PORCTH	89	0 ~ 2048	
4	DISP LINE	1012	0 ~ 2048	
5	CLAMP	7	0 ~ 2048	
Group: 515 HDTV 720p Gakaku				
0	TOTAL DOTS	1650	0 ~ 2048	
1	DISP DOTS	1248	0 ~ 2048	720p
2	H BACK PORCTH	318	0 ~ 2048	
3	V BACK PORCTH	34	0 ~ 2048	
4	DISP LINE	700	0 ~ 2048	
5	CLAMP	8	0 ~ 2048	
Group: 516 HDTV 575p Gakaku				
0	TOTAL DOTS	1408	0 ~ 2048	
1	DISP DOTS	1024	0 ~ 2048	575p
2	H BACK PORCTH	296	0 ~ 2048	
3	V BACK PORCTH	48	0 ~ 2048	
4	DISP LINE	542	0 ~ 2048	

No.	Adjustment Item	Initial Value	Range	Input source / Description
5	CLAMP	8	0 ~ 2048	
Group: 517 HDTV 480p Gakaku				
0	TOTAL DOTS	1285	0 ~ 2048	
1	DISP DOTS	1024	0 ~ 2048	480p (top bottom left right 7)
2	H BACK PORCTH	214	0 ~ 2048	
3	V BACK PORCTH	47	0 ~ 2048	
4	DISP LINE	460	0 ~ 2048	
5	CLAMP	7	0 ~ 2048	
Group: 518 RGB NTSC Gakaku				
0	TOTAL DOTS	1308	0 ~ 2048	
1	DISP DOTS	1024	0 ~ 2048	RGB NTSC
2	H BACK PORCTH	223	0 ~ 2048	
3	V BACK PORCTH	43	0 ~ 2048	
4	DISP LINE	462	0 ~ 2048	
5	CLAMP	4	0 ~ 2048	
Group: 519 RGB PAL Gakaku				
0	TOTAL DOTS	1338	0 ~ 2048	
1	DISP DOTS	1024	0 ~ 2048	RGB PAL
2	H BACK PORCTH	250	0 ~ 2048	
3	V BACK PORCTH	57	0 ~ 2048	
4	DISP LINE	546	0 ~ 2048	
5	CLAMP	4	0 ~ 2048	

Test Points and Locations

● MAIN BOARD



■ Troubleshooting

No Power

The possible causes of No Power are listed below. Please check following and refer to power supply and protection circuits diagram in the figure opposite.

1. Stop the operation of power supply circuit due to detection of abnormality.

- Detected the abnormality on the secondary power supply lines.
  Power failure detection diodes detect an abnormal voltage on the power supply. Check the shortage of secondary circuits, ICs, condensers, etc.
  Check power supply lines, 9VA and 15.7V on the Drive Board, and 3.3V, 5VD, 5VA, S5V, 9V and 15.5V on Main Board.
  Check detection diodes, D1653, D1604 on Drive Board, and D2304, D2303, D2305, D2306, D3801, D4118, D1182 and D1161 on Main Board.

- Detected the operation stop of cooling fans.
  Power failure detection diodes detect the fan operation stop. Check Fans FN901, FN902, FN903, FN904, FN905, FN907 and FN908.
  Check fan's power supply lines and detection diodes and transistors D6610, D6612, D6613, D6614, D6616, D6617, D6618 and Q6609 on Power Sub Board and D7021 and D7022 on I/F Board.

- Detected the abnormal temperature rise inside the projector.
  Temperature sensor ICs detect abnormal temperature.
  Check peripheral circuits and sensor ICs IC1691 on Sensor1 Board, IC1871 and IC1872 on Main Board.
  Thermal switch (SW905) detects abnormal temperature. Check peripheral circuits and SW905.
  SW905..... short in normal
  SW905 opens when peripheral temperature is over 90°C.

- Detected the abnormality on the lamp ballast unit.
  The lamp ballast unit outputs error signal (LAMP_DET) to pin 123 of IC801.
  LAMP_DET ..... High in abnormal

- Detected the over load/over voltage on power supply circuit.
  Feedback circuits detect over load or over voltages.
  Check PC602 and peripheral circuits on Power Board.

- Operated the mechanical protect on the Interlock switch (SW902). Check lamp cover fixed correctly.

- Fuse (F601) open.

2. Abnormality occurs on drive signals for power or lamp circuit.

- Abnormality on power starter signals (FAN_DRIVE/FAN_SW).
  FAN_SW signal is output from pin 137 of IC801 and applied to power switching circuit through Q4807. It drives the power oscillation circuit in Power Board and power supply for the cooling fans in Sub Power Board.
  FAN_DRIVE/FAN_SW.... High in power on
  Check FAN_DRIVE and FAN_SW signals, switching circuit Q6623, Q6624, Q6604, IC6604, IC6606, IC6603, IC6606 and peripheral circuit on Sub Power Board.

- Abnormality on fan drive signal (IC_RESET).
  IC_RESET signal is output from pin 2 of IC801 and sent to Q6616, Q6612 and Q6613 on Sub Power Board. They switch power supply lines, 9V, 10VA, 15.7V, 15VP, 3.4V.
  IC_RESET..... High in power on
  Check IC_RESET signal, IC801 on Main Board, drive transistors and ICs Q6616, Q6617, Q6612, Q6611, Q6613, Q6626, Q6602, Q6628, IC6608, IC6618, IC6607, IC6601, IC6616 and peripheral circuits.

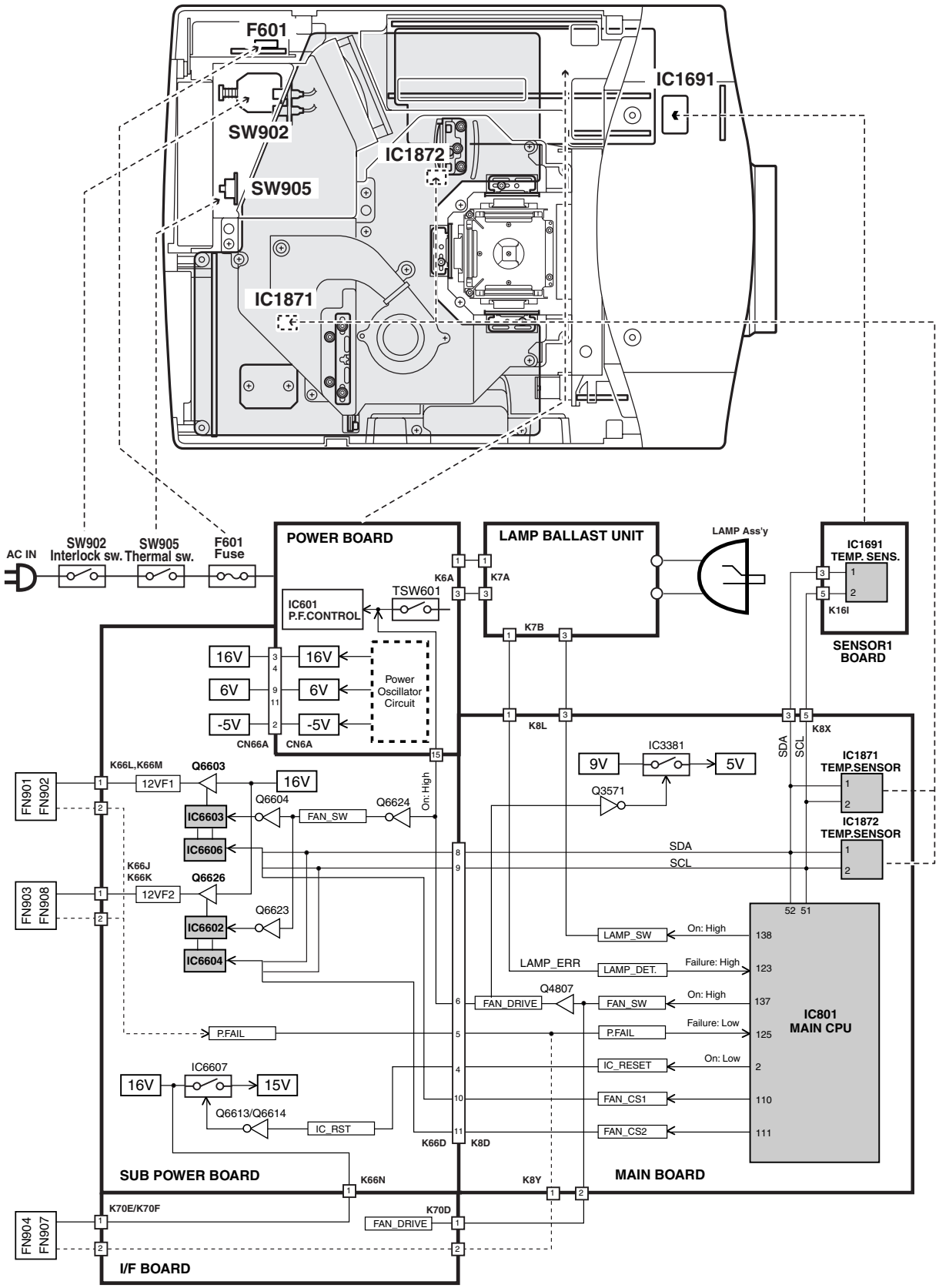
- Abnormality on power drive signal (LAMP_SW).
  LAMP_SW signal is output from pin 138 of IC801 and sent to pin 3 of K8L on Main Board to drive the Lamp Ballast Unit.
  LAMP_SW ..... High in power on
  Check LAMP_SW signal, IC801 and peripheral circuits.

3. Abnormality occurs on the power circuit.

- Abnormality on power primary circuit
  Check Line filters, L601, L602, D604, Q601, DS601, L611, IC651, D632, etc.

- Abnormality on power secondary circuit
  Check D681, D682, D683, IC681, etc.

Power supply drive and protection diagrams and locations



No Picture

The possible causes of No Picture are listed below. Please check following and refer to video signal processing diagrams in the figure opposite.

1. No picture from Video source

Composite Video Input

Check composite video signal at pins 3 and 4 of K10R on AV Board and K8A on Main Board.
Check Y, C signals at pins 15 and 14 of IC1141.
Check Y, C signals at pins 5 and 7 of IC3101.
Check IN2/IN3 signal at pin 22 of IC101.
IN2 : Low, IN3 : High

S-Video Input

Check S-video signals at pins 47-48 (Y), 51-52(C) of K10R and K8A.
Check Y, C signals at pins 43 and 44 of IC3101.

Component Input

Check component signals at pins 7-8 (Pb), 11-12 (Pr) and 3-4 (Y) of K10R and K8A.
Check component signals (Y, Pr, Pb) at test points TP4111PB, TP4111PR and TP4111Y.
Check IN2/IN3 signal at pin 22 of IC101.
IN2 : Low, IN3 : High

All of video signals

Check component signals (Y, Cr, Cb) at test points TP401CR, TP401CB and TP401Y.
Check component signals (Y, Cr, Cb) at pins 67, 68 and 69 of IC4101.
Check component signals (Y, Pr, Pb) at pins 73, 74 and 75 of IC4101.
Check Sync signals (AV_HSYNC, AV_VSYNC) at pins 4 and 9 of IC3101.
Check Sync signals (AV_HSYNC, AV_VSYNC) at pins 65 and 66 of IC4101.
Check RGB signals at pin 35, 37 and 39 of IC4101.
Check RGB signals at pins 15, 14 and 4 of IC4181.
Check RGB signals at pins 8, 10 and 12 of IC201.
Check Sync signals (AV_HSYNC, AV_VSYNC) at pins 1 and 3 of IC3231.
Check CG/HD switching signal at pin 22 of IC201 and pins 9, 10 of IC3231.
CG : Low, HD : High

2. No picture from Computer source

Check RGB signals at pins 19-20, 23-24 and 27-28 of K10Q on AV Board and K8B on Main Board.
Check Sync signals (CG_HSYNC, CG_VSYNC) at pins 11-12 and 13-14) of K10Q on AV Board and K8B on Main Board.
Check RGB signals at test points TP20R, TP21R, TP20G, TP21G, TP20B and TP21B.
Check sync signals at test point TPHS and TPVS.
Check CG1/CG2 switching signal at pin 22 of IC5201 and pins 16 of IC5204. The CG1/CG2 switching signal is output from pin 50 of IC1801.
CG1 : Low, CG2 : High
Check CG/HD switch signal at pin 22 of IC201 and pins 9, 10 of IC3231. The CG/HD signal is out put from pin 52 of IC1801.
CG : Low, HD : High

3. No picture from both of Video and Computer sources.

Check RGB signals at test points TP20R, TP21R, TP20G, TP21G, TP20B and TP21B.
Check HSYNC signal at test point TPHS and VSYNC signal at TPVS.
Check clamping signals at IC211 and IC212.

4. No picture from DVI source.

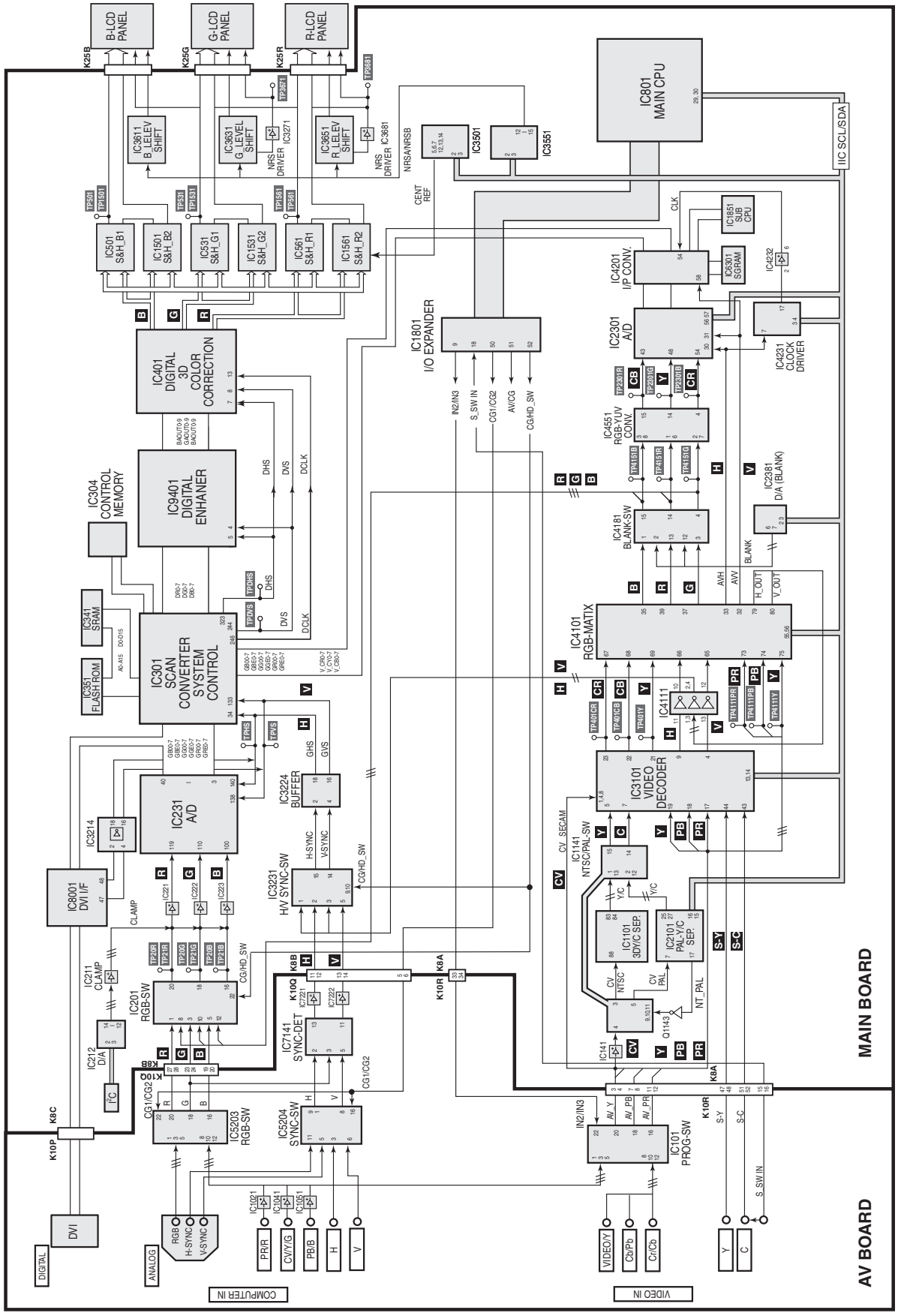
Check 5V power supply(5VDVI) at pins 1 and 2 of K10P.
Check Sync signal at pins 47 and 48 of IC8001.
Check ICs IC8001 and peripheral circuits.

5. No picture from all of sources

Check RGB S&H signals at test points TP501, TP1501, TP531, TP1531, TP561 and TP1561.
Check NRS signal at test point TP2551.
Check power supply circuit 15.5V and 15VP and peripheral circuit.
Check ICs IC501, IC531, IC561, IC1501, IC1531, IC1561, IC9401, IC401, IC3301 and peripheral circuits.

SIGNAL	K10Q/K8B	SIGNAL	K10R/K8A
CG1/CG2-SW	5-6	AV_Y/Video	3-4
H-Sync	11-12	AV_PB	7-8
V-Sync	13-14	AV_PR	11-12
B	19-20	S_SW-IN	15-16
G	23-24	IN2/IN3-SW	33-34
R	27-28	S-Y	47-48
		S-C	51-52

Video Signal processing diagrams



No Sound

1. No audio signals at AV input circuit.

Check audio signals at pins 1, 13 (CG1), 5, 14 (CG2) and 2, 12 (VIDEO) of IC5011 on AV Board. Check IC5011 and peripheral circuits.

2. Incorrect operation of Input mode switching.

Check AUDIO_SW1/AUDIO_SW2 switching signals at pins 9 and 10 of IC5011. The AUDIO_SW1/AUDIO_SW2 signals are output from pins 4 and 5 of IC1801. See the truth table below for input mode selection.

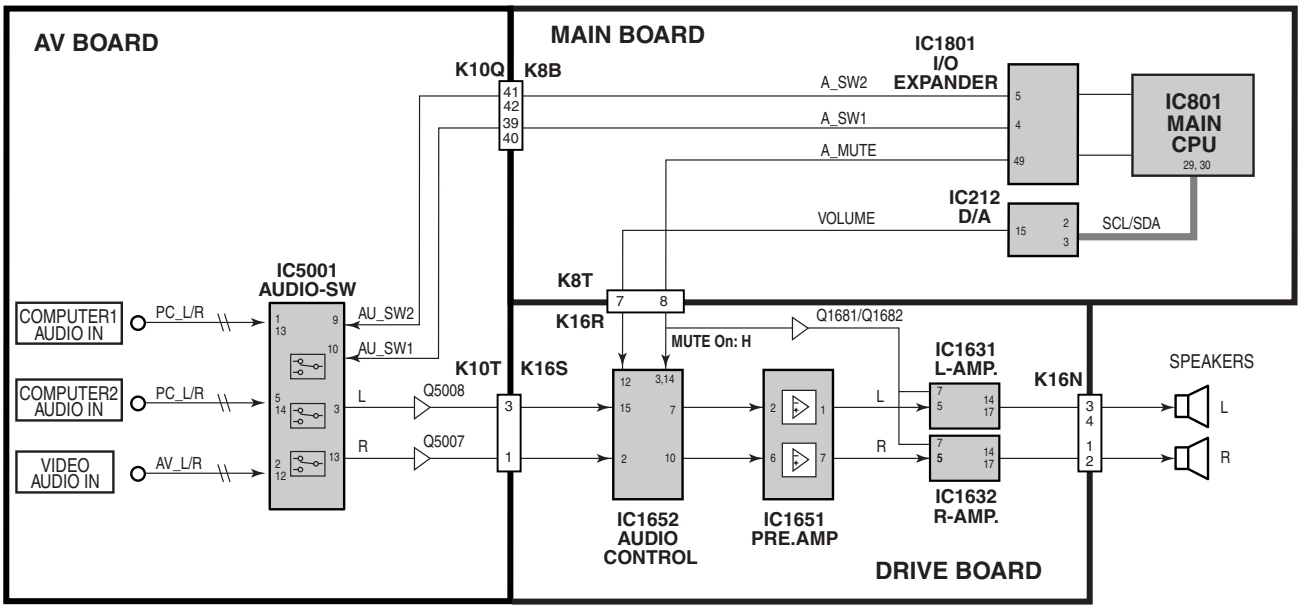
Logic Table of IC5011		
Pin 10	Pin 9	Mode
L	L	COMPUTER 1
H	L	COMPUTER 2
L	H	VIDEO

3. No audio output signal at speakers.

Check audio signals at pins 3, 4 and 1, 2 of K16U on M Drive Board.
Check MUTE signal at pin 8 of K16R/K8T.
The MUTE signal is output from pin 48 of IC1801.
Mute On : High
Check MUTE signal at pins 3 and 14 of IC1652.
Check sound volume signal at pin 7 of K16R/K8T.
The VOLUME signal is output from pin 15 of IC212 and it is controlled by IC801 via the IIC bus.
Volume Min.: Low
Check audio signals at IC1651,IC1631, IC1632 and peripheral circuits.

4. No power supply at audio circuit.

Check 6V(6V AUDIO) power supply line.



Lens Motor Problems

1. No drive signals supplied at motors

Check drive signals at pins 1 and 2 of K16M for focus motor, pins 3 and 4 of K16M for zoom motor and pins 1 and 2 of K16L for lens shift motor on Power Board.
Check drive signals at pins 2 and 10 of ICs IC1611, IC1602 and IC1601.
Check ICs IC1611, IC1602 and IC1601 and peripheral circuits. Check motor drive power supply (9VA).

2. No drive signals supplied at motor drive ICs.

Check drive signals at pins 5 and 6 of ICs IC1611, IC1602 and IC1601. They are supplied from pins 4 and 5 for focus drive, pins 6 and 7 for zoom drive and pins 9 and 10 for lens shift drive of IC1641 D/A control IC.

3. No drive signals output from CPU.

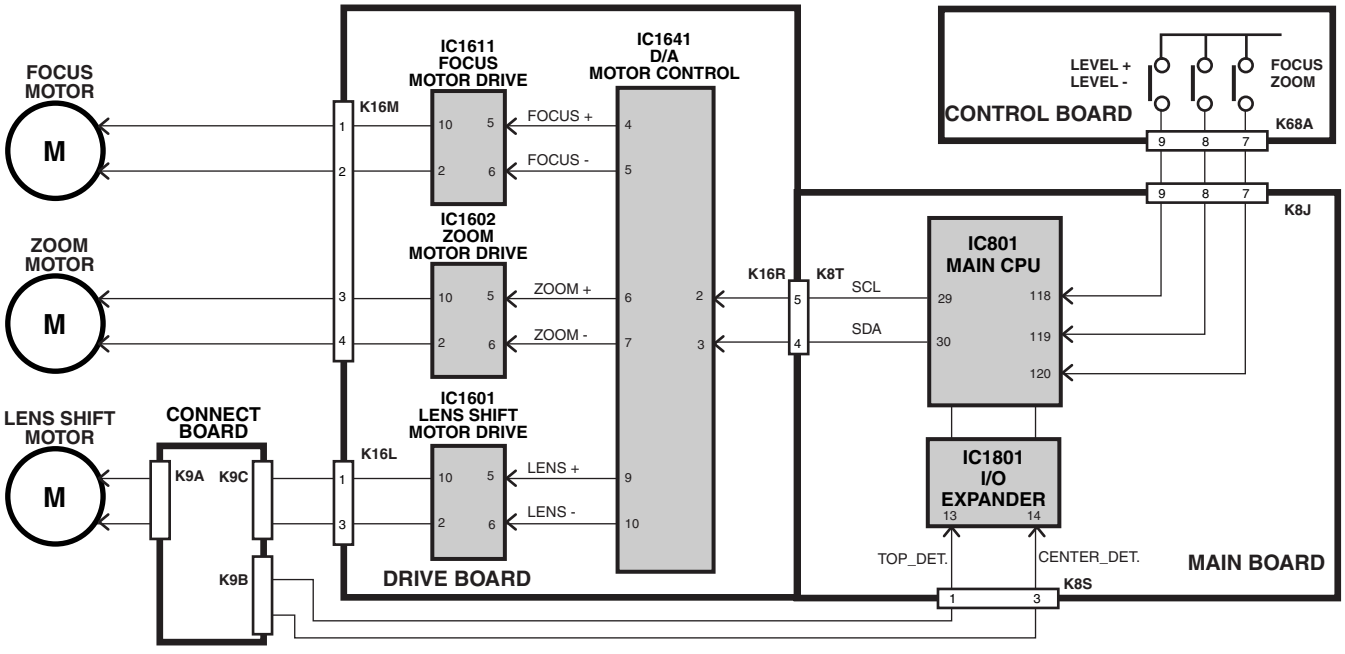
The motor dive signals are supplied from IC801, main CPU, via the IIC bus control lines.

4. No key switch signals input to CPU.

Check signals at pins 118 to 120 of IC801 when pressing the key buttons. Check key buttons.

Logic Table of IC1611/IC1602/IC1601

Input		Output		Operation
5	6	10	2	
H	L	L	H	Forward drive
L	H	H	L	Reverse drive
H	H	L	L	Braking
L	L	-	-	Stand by



■ Control Port Functions

● System Control & I/O Port Table (IC801)

Pin No.	Name	Function Name	Function	Polarity	I/O
1	PA23/WRHH	USB RESET	USB Reset Signal	Active L	O
2	PE14/TIOC4C/DACK0/AH	IC RESET	Power on/off control except FAN and LAMP	Active L	O
3	PA22/WRHL				
4	PA21/CASHH	RS232C_SW	Not used		
5	PE15/TIOC4D/DACK1/IRQOUT	POWER SW	Power ON: H, Power OFF: L		O
6	VSS	GND			
7	PC0/A0	ADDRESS0	Address Bus 0		O
8	PC1/A1	ADDRESS1	Address Bus 1		O
9	PC2/A2	ADDRESS2	Address Bus 2		O
10	PC3/A3	ADDRESS3	Address Bus 3		O
11	PC4/A4	ADDRESS4	Address Bus 4		O
12	VCC	5V			
13	PC5/A5	ADDRESS5	Address Bus 5		O
14	VSS	GND			
15	PC6/A6	ADDRESS6	Address Bus 6		O
16	PC7/A7	ADDRESS7	Address Bus 7		O
17	PC8/A8	ADDRESS8	Address Bus 8		O
18	PC9/A9	ADDRESS9	Address Bus 9		O
19	PC10/A10	ADDRESS10	Address Bus 10		O
20	PC11/A11	ADDRESS11	Address Bus 11		O
21	PC12/A12	ADDRESS12	Address Bus 12		O
22	PC13/A13	ADDRESS13	Address Bus 13		O
23	PC14/A14	ADDRESS14	Address Bus 14		O
24	PC15/A15	ADDRESS15	Address Bus 15		O
25	PB0/A16	ADDRESS16	Address Bus 16		O
26	VCC	5V			
27	PB1/A17	ADDRESS17	Address Bus 17		O
28	VSS	GND			
29	PA20/CASHL	SCL 1	IIC Bus 1 Clock		I/O
30	PA19/BACK/DRAK1	SDA 1	IIC Bus 1 Data		I/O
31	PB2/IRQ0/POE0/RAS				
32	PB3/IRQ1/POE1/CASL				
33	PA18/BREQ/DRAK0	SYS SW	Peripheral IC Power SW (ON=L, OFF=H)		O
34	PB4/IRQ2/POE2/CASH	AFT-V	Vertical Sync. Signal for Panel Drive	Active L	I
35	VSS	GND			
36	PB5/IRQ3/POE3/RDWR	DE_DIF	Detect DVI Effective		I
37	PB6/IRQ4/A18/BACK	ADDRESS18	Address Bus 18		O
38	PB7/IRQ5/A19/BREQ	ADDRESS19	Address Bus 19		O
39	PB8/IRQ6/A20/WAIT	ADDRESS20	Address Bus 20		O
40	VCC	5V			
41	PB9/IRQ7/A21/ADTRG	ADDRESS21	Address Bus 21		O
42	VSS	GND			
43	PA14/RD	READ	Read signal	Active L	O
44	WDTOVF	SEREKUTO	Over flow output from Watch dog timer		O
45	PD31/D31/ADTRG	RTS	RS232C RTS (Request To Send)		I
46	PD30/D30/IRQOUT	CTS	RS232C CTS (Clear To Send)		O
47	PA13/WRH				
48	PA12/WRL	WRL	Write signal (Lower 8 bit)	Active L	O
49	PA11/CS1	ET7050SELECT	Select SW for Color Correct. ET7050		O
50	PA10/CS0	CS0	Flash Memory Chip Select	Active L	O
51	PA9/TCLKD/IRQ3	SCL 2	IIC Bus 2 Clock		I/O
52	PA8/TCLKC/IRQ2	SDA 2	IIC Bus 2 Data		I/O
53	PA7/TCLKB/CS3	CS3	USB/IO EXP Chip Select	Active L	O
54	PA6/TCLKA/CS2	CS2	SRAM/CXD3511Q Chip Select	Active L	O
55	VSS	GND			
56	PD29/D29/CS3				
57	PD28/D28/CS2	PW_SEL	PW365 RS232C Select		O
58	PD27/D27/DACK1	PW_INTR	PW_365 Dividing signal		O
59	PD26/D26/DACK0	PW_OUT1	PW_365 Data output	(reserve)	O
60	PD25/D25/DREQ1	PW_OUT0	PW_365 Data output	(reserve)	O
61	VSS	GND			
62	PD24/D24/DREQ0	DAC_CS	Select signal for DAC M62358		O
63	VCC	5V			
64	PD23/D23/IRQ7	DVI_PC		DVI = L	O
65	PD22/D22/IRQ6	DVI_OUT		DVI = L	O
66	PD21/D21/IRQ5	CG_HD		CG = L	O
67	PD20/D20/IRQ4				
68	PD19/D19/IRQ3				
69	PD18/D18/IRQ2	PW_IN1	PW365 Data input (reserve)		I
70	PD17/D17/IRQ1	PW_IN0	PW365 Data input (reserve)		I
71	VSS	GND			

Pin No.	Name	Function Name	Function	Polarity	I/O
72	PD16/D16/IRQ0	reserve			
73	PD15/D15	DATA15	Data Bus 15		I/O
74	PD14/D14	DATA14	Data Bus 14		I/O
75	PD13/D13	DATA13	Data Bus 13		I/O
76	PD12/D12	DATA12	Data Bus 12		I/O
77	VCC	5V			
78	PD11/D11	DATA11	Data Bus 11		I/O
79	VSS	GND			
80	PD10/D10	DATA10	Data Bus 10		I/O
81	PD9/D9	DATA9	Data Bus 9		I/O
82	PD8/D8	DATA8	Data Bus 8		I/O
83	PD7/D7	DATA7	Data Bus 7		I/O
84	PD6/D6	DATA6	Data Bus 6		I/O
85	VCC	5V			
86	PD5/D5	DATA5	Data Bus 5		I/O
87	VSS	GND			
88	PD4/D4	DATA4	Data Bus 4		I/O
89	PD3/D3	DATA3	Data Bus 3		I/O
90	PD2/D2	DATA2	Data Bus 2		I/O
91	PD1/D1	DATA1	Data Bus 1		I/O
92	PD0/D0	DATA0	Data Bus 0		I/O
93	VSS	GND			
94	XTAL	XTAL	Oscillator Input		I
95	MD3	Mode 3	Multiplex setting with Mode 2 (set H)		I
96	EXTAL	EXTAL	Oscillator output		O
97	MD2	Mode 2	Multiplex setting with Mode 3 (set L)		I
98	NMI	NONMASK	Non-maskarable Input		I
99	VCC (FWP)	FWP	Write Mode for Flash memory		I
100	PA16/AH	FLASH MODE	FWP Control		O
101	PA17/WAIT	FAN ON/OFF	Not used		O
102	MD1	Mode 1	MCU Mode setting with Mode 0 (set H)		I
103	MD0	Mode 0	MCU Mode setting with Mode 1 (set L)		I
104	PLLVCC	PLLVCC	Power for PLL		
105	PLLCAP	PLLCAP	PLL Filter		
106	PLLVSS	PLLGND	GND for PLL		
107	PA15/CK	M-CLK	CPU Clock output		O
108	RES	RESET	RESET Input	Active L	I
109	PE0/TIOC0A/DREQ0	ET7050SCS	Serial Chip select for Color Correction ET5070	Active L	O
110	PE1/TIOC0B/DRAK0	FAN_CS1	Chip select for FAN 1		O
111	PE2/TIOC0C/DREQ1	FAN_CS2	Chip select for FAN 2		O
112	VCC	5V			
113	PE3/TIOC0D/DRAK1	SDA3	IIC Bus 3 Data		
114	PE4/TIOC1A	SCL3	IIC Bus 3 Clock		
115	PE5/TIOC1B	USB_BRST	Pull-up resistor on/off for USB		
116	PE6/TIOC2A	SH_SEL	S&H Select		
117	VSS	GND			
18	PF0/AN0	KEY1	Key iput 1 (A/D input)		I
119	PF1/AN1	KEY2	Key iput 2 (A/D input)		I
120	PF2/AN2	KEY3	Key iput 3 (A/D input)		I
121	PF3/AN3	OPT1	Option Destination	(A/D input)	I
122	PF4/AN4	OPT2	Option Air pressure sensor	EPSN:H	I
123	PF5/AN5	LAMP DET	Detection Lamp Error		I
124	AVSS	GND	GND for A/D		
125	PF6/AN6	POWER FAIL	Power Fail (A/D input: Abnormal when 2V or less input)		I
126	PF7/AN7	SDATA IN	Serial Data input		I
127	AVREF	5 V	Reference Voltage for A/D		
128	AVCC	5 V	Power for A/D		
129	VSS	GND			
130	PA0/RXD0	PW_RX	PW365 Rx		I
131	PA1/TXD0	PW_TX	PW365 Tx		O
132	PA2/SCK0/DREQ0/IRQ0				
133	PA3/RXD1	Rx	RS232C Rx		I
134	PA4/TXD1	Tx	RS232C Tx		O
135	VCC	5V			
136	PA5/SCK1/DREQ1/IRQ1	USB INTR	USB Dividing signal input	Active L	I
137	PE7/TIOC2B	FAN SW	FAN ON/OFF output		O
138	PE8/TIOC3A	LAMP SW	LAMP ON/OFF output	Active H	O
139	PE9/TIOC3B	SDATA OUT	Serial Data output		O
140	PE10/TIOC3C	SCLK	Serial Clock output		O
141	VSS	GND			
142	PE11/TIOC3D	EXP RESET	I/O Expander	Active H	O
143	PE12/TIOC4A	R/C	Remote Control signal input	Active L	I
144	PE13/TIOC4B/MRES	PW RESET	PW365 Reset signal output	Active L	O

● Parallel I/O Expander (IC1801, M66500FP)

Pin No.	Name	Function Name	Function	Polarity	I/O
1	PF6	CG_FILTER			O
2	PF7	D_TURBO_SEL	DIGITAL TURBO Selection		O
3	Vcc	5 V ±10 %			-
4	PE0	A SW1	Audio SW 1		O
5	PE1	A SW2	Audio SW 2		O
6	PE2	SEL_BAISOKU	Double Scan Selection		O
7	PE3	IP_CSA	CPU Strobe signal for IP Conversion		O
8	PE4	IP+RESETSW	CPU reset signal for IP Conversion		O
9	PE5	IN2/IN3_SW	Input2/3 switch		O
10	PE6	PC_SWINV	Auto Image		O
11	PE7	S_SW	S-Input		O
12	GND3	GND	-		
13	PB0	LENS_TOP	Lens Position Detection [Top]	Top=L	I
14	PB1	LENS_CENTER	Lens Position Detection [Center]	Not used	I
15	PB2	LENS_BOTTOM	Lens Position Detection [Bottom]	Bottom=L	I
16	PB3	HD-DET	HD Signal Detection , exist at CXA2101	On=H	I
17	PB4	COMP-DET	Component input Detection Yes/No	Not used	I
18	PB5	S-DET	S-Input Detection Yes/No	Not used	I
19	PB6	V-DET	V-Sync Detection at C-Sync		I
20	PB7	PC_DET	Network Board Detection Yes/No	Attached: L	I
21	PA7				I
22	PA6				I
23	PA5				I
24	PA4				I
25	PA3				I
26	PA2				I
27	PA1	DAC_SW	For Service Mode Groupe 6-10,11,12		I
28	PA0	TURBO_LED	Bright LED Drive		I
29	Vcc	5V ±10 %	-		
30	RD		Read Select	Active L	I
31	WR		Write Select	Active L	I
32	CS		Chip Select	Active L	I
33	RESET		Reset	Active H	I
34	GND1	GND	-		
35	A2		Port Select 2		I
36	A1		Port Select 1		I
37	A0		Port Select 0		I
38	D0		Data Bus 0		I/O
39	D1		Data Bus 1		I/O
40	D2		Data Bus 2		I/O
41	D3		Data Bus 3		I/O
42	D4		Data Bus 4		I/O
43	D5		Data Bus 5		I/O
44	D6		Data Bus 6		I/O
45	D7		Data Bus 7		I/O
46	PC7	MOUSE2	Mouse Select 2		O
47	PC6	NET_SW	Network Board On/Off SW	On: L	O
48	PC5	WATT_SW	Lamp Mode Switch	Eco: L	O
49	PC4	A_MUTE	Mute output		O
50	PC0	CG1/CG2	Computer 1/Computer 2 SW		O
51	PC1	AV/CG	Computer/Video SW		O
52	PC2			CG=L	O
53	PC3	DDC_CONT	DDC PC/CPU SW	CPU: H	O
54	PG0				I
55	PG1				I
56	PG2	SCDT_DIF2	DVI Output SW	DVI=H	O
57	PG3	SCDT_DIF	DVI Output SW	DVI=H	O
58	GND2	GND	-		
59	PF0		Temp Warning LED Drive output	LED On=L	O
60	PF1		Lamp Replace LED Drive output	LED On=L	O
61	PF2		Ready LED Drive output	LED On=L	O
62	PF3	PD_DIF	DVI Signal SW_8001	DVI=H	O
63	PF4	PD_DIF2	DVI Signal SW_8051	DVI=H	O
64	PF5	DDC_CONT_DVI	SGRAM Bus Reset	Active L	O

● IIC Bus I/O Expander (IC1641, M62320FP) Port Functions

Pin No.	Name	Function	Action		I/O
1	SO	Serial Data output port (Not connected)			O
2	SCL	IIC BUS SCL			I
3	SDA	IIC BUS SDA			I/O
4	D0	FOCUS+	FOCUS +	Active H	O
5	D1	FOCUS-	FOCUS -	Active H	O
6	D2	ZOOM+	ZOOM +	Active H	O
7	D3	ZOOM-	ZOOM -	Active H	O
8	Vss	GND			-
9	D4	LENS UP	LENS UP	Active H	O
10	D5	LENS DOWN	LENS DOWN	Active H	O
11	D6	BRIGHT ON	BRIGHT ON	Active H	O
12	D7	BRIGHT OFF	BRIGHT OFF	Active H	O
13	Vdd	Power supply +5V ±10 %			-
14	CS2	Slave address setting port 2 (GND)			I
15	CS1	Slave address setting port 1 (GND)			I
16	CS0	Slave address setting port 0 (GND)			I

● IIC Bus DA Converter (IC212, M62393FP) Port Functions

Pin No.	Name	Function	I/O
1	R	Serial Data output port (Not connected)	O
2	SCL	IIC BUS SCL	I
3	SDA	IIC BUS SDA	I/O
4	A05	Not used	O
5	A06	Not used	O
6	A07	Not used	O
7	A08	Not used	O
8	VrefL	DAC Lower Reference Voltage input	-
9	VrefU 1	DAC Upper Reference Voltage input (CH5~CH8)	-
10	Vss	GND	-
11	VrefU2	DAC Upper Reference Voltage input (CH1~CH 4)	-
12	A01	AV_RCLP	O
13	A02	AV_GCLP	O
14	A03	AV_BCLP	O
15	A04	VOLUME	O
16	Vcc	Power Supply for Output Buffer (4.5V ~ 5.5V)	-
17	Vdd	Power Supply +5V±10 %	-
18	CS2	Slave address setting port 2 (GND)	I
19	CS1	Slave address setting port 1 (Vdd)	I
20	CS0	Slave address setting port 0 (GND)	I

● IIC Bus DA Converter (IC2381, M62393FP) Port Functions

Pin No.	Name	Function	I/O
1	R	Serial Data output port (Not connected)	O
2	SCL	IIC BUS SCL	I
3	SDA	IIC BUS SDA	I/O
4	A05	Not used	O
5	A06	Not used	O
6	A07	R_BLK_DC	O
7	A08	B_BLK_DC	O
8	VrefL	DAC Lower Reference Voltage input	-
9	VrefU 1	DAC Upper Reference Voltage input (CH5~CH8)	-
10	Vss	GND	-
11	VrefU2	DAC Upper Reference Voltage input (CH1~CH 4)	-
12	A01	Not used	O
13	A02	Not used	O
14	A03	Not used	O
15	A04	Not used	O
16	Vcc	Power Supply for Output Buffer (4.5V ~ 5.5V)	-
17	Vdd	Power Supply +5V±10 %	-
18	CS2	Slave address setting port 2 (GND)	I
19	CS1	Slave address setting port 1 (GND)	I
20	CS0	Slave address setting port 0 (GND)	I

● IIC Bus DA Converter (IC3551, M62399FP) Port Functions

Pin No.	Name	Function	I/O
1	R	Serial Data output port (Not connected)	O
2	SCL	IIC BUS SCL	I
3	SDA	IIC BUS SDA	I/O
4	A05	DWN	O
5	A06	V_COMR	O
6	A07	V_COMG	O
7	A08	V_COMB	O
8	VrefL	DAC Lower Reference Voltage input	-
9	VrefU 1	DAC Upper Reference Voltage input (CH5~CH8)	-
10	Vss	GND	-
11	VrefU2	DAC Upper Reference Voltage input (CH1~CH 4)	-
12	A01	NRSB	O
13	A02	NRSA	O
14	A03	XRGT3	O
15	A04	RGT3	O
16	Vcc	Power Supply for Output Buffer (2.4*VrefU ~ 12V)	-
17	Vdd	Power Supply +5V±10 %	-
18	CS2	Slave address setting port 2 (GND)	I
19	CS1	Slave address setting port 1 (GND)	I
20	CS0	Slave address setting port 0 (GND)	

● IIC Bus DA Converter (IC3501, M62399FP) Port Functions

Pin No.	Name	Function	I/O
1	R	Serial Data output port (Not connected)	O
2	SCL	IIC BUS SCL	I
3	SDA	IIC BUS SDA	I/O
4	A05	Not used	O
5	A06	REF_B	O
6	A07	REF_G	O
7	A08	REF_R	O
8	VrefL	DAC Lower Reference Voltage input	-
9	VrefU 1	DAC Upper Reference Voltage input (CH5~CH8)	-
10	Vss	GND	-
11	VrefU2	DAC Upper Reference Voltage input (CH1~CH 4)	-
12	A01	B_CENT	O
13	A02	G_CENT	O
14	A03	R_CENT	O
15	A04	Not used	O
16	Vcc	Power Supply for Output Buffer (2.4*VrefU ~ 12V)	-
17	Vdd	Power Supply +5V±10 %	-
18	CS2	Slave address setting port 2 (GND)	I
19	CS1	Slave address setting port 1 (GND)	I
20	CS0	Slave address setting port 0 (GND)	I

■ Waveforms

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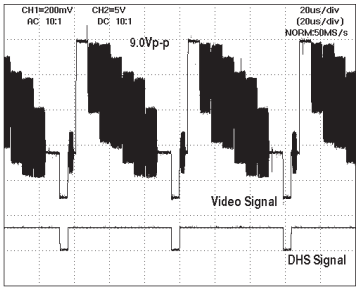	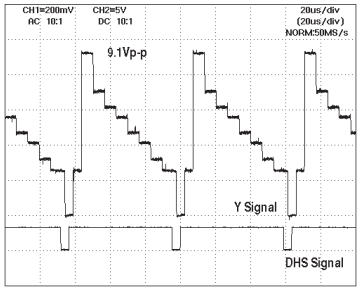	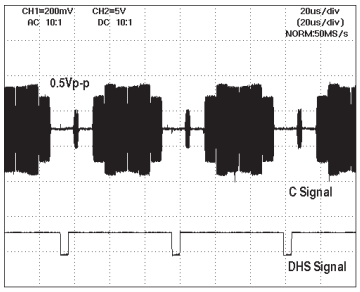
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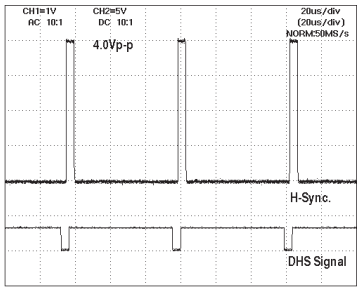	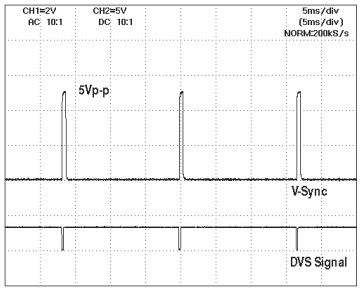	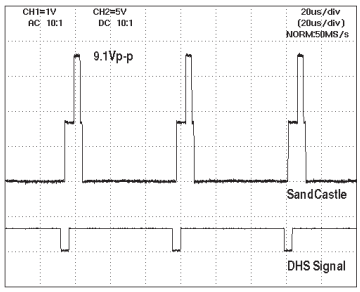
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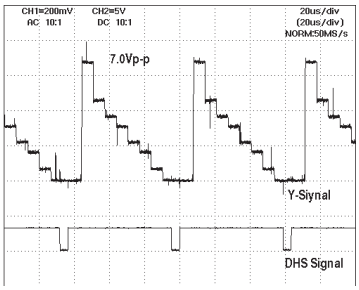	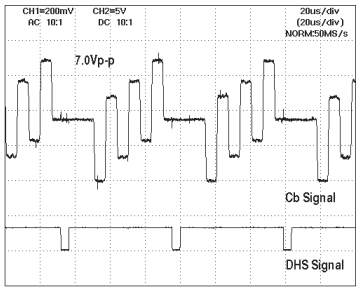	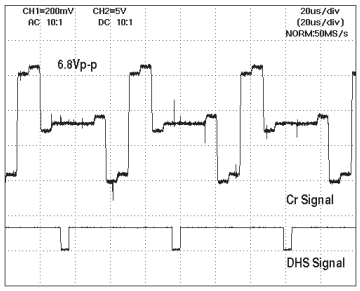
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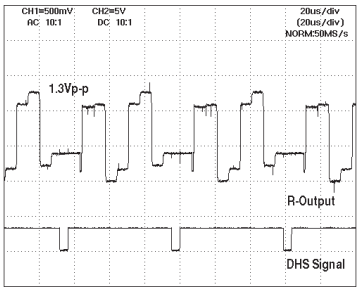	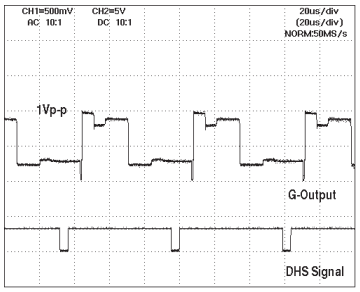	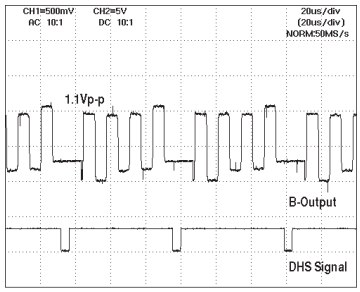
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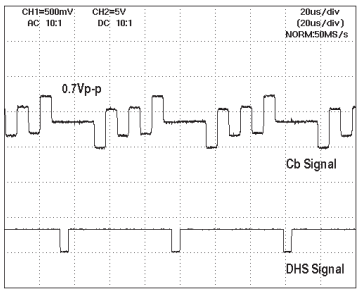	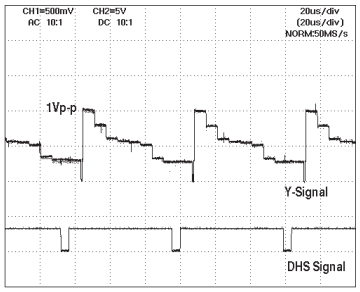	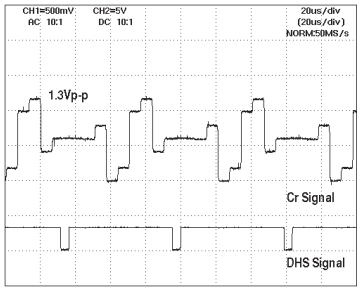

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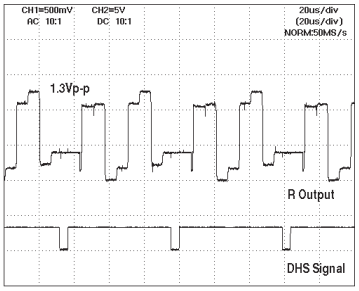	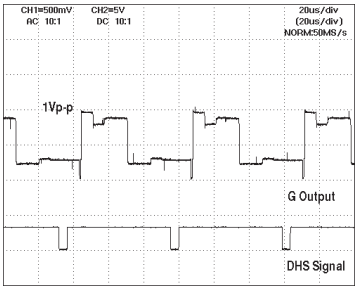	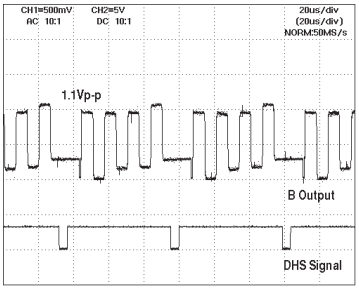
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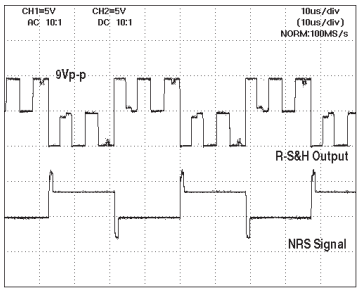
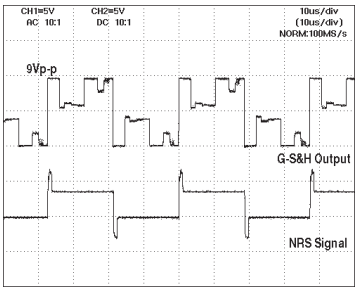
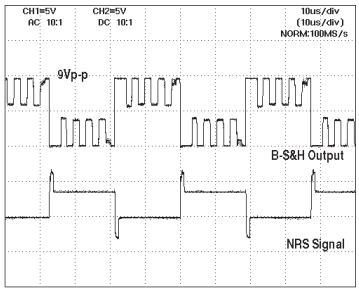
		

■ Cleaning

After long periods of use, dust and other particles will accumulate on the LCD panel, prism, mirror, polarized glass, lens, etc., causing the picture to darken or color to blur. If this occurs, clean the inside of optical unit.

Remove dust and other particles using air spray. If dirt cannot be removed by air spray, disassemble and clean the optical unit.

Cleaning with air spray

1. Remove the cabinet top following to “Mechanical Disassemblies”.
2. Clean up the LCD panel and polarizing plate by using the air spray from the cabinet top opening.

Caution:
Use a commercial (inert gas) air spray designed for cleaning camera and computer equipment. Use a resin-based nozzle only. Be vary careful not to damage optical parts with the nozzle tip. Never use any kind of cleanser on the unit. Also, never use abrasive materials on the unit as this may cause irreparable damage.

Disassembly Cleaning

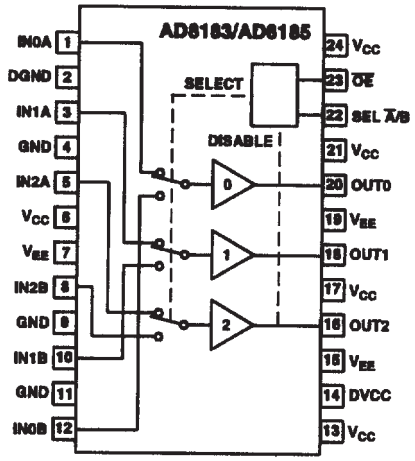
Disassembly cleaning method should only be performed when the unit is considerable dirty and cannot be sufficiently cleaned by air spraying alone.
Be sure to readjust the optical system after performing disassembly cleaning.

1. Remove the cabinet top and main units following to “Mechanical Disassemblies”.
2. Remove the optical base top following to “Optical Unit Disassemblies”. If the LCD panel needs cleaning, remove the LCD panel unit following to “LCD panel replacement”.
3. Clean the optical parts with a soft cloth. Clean extremely dirty areas using a cloth moistened with alcohol.

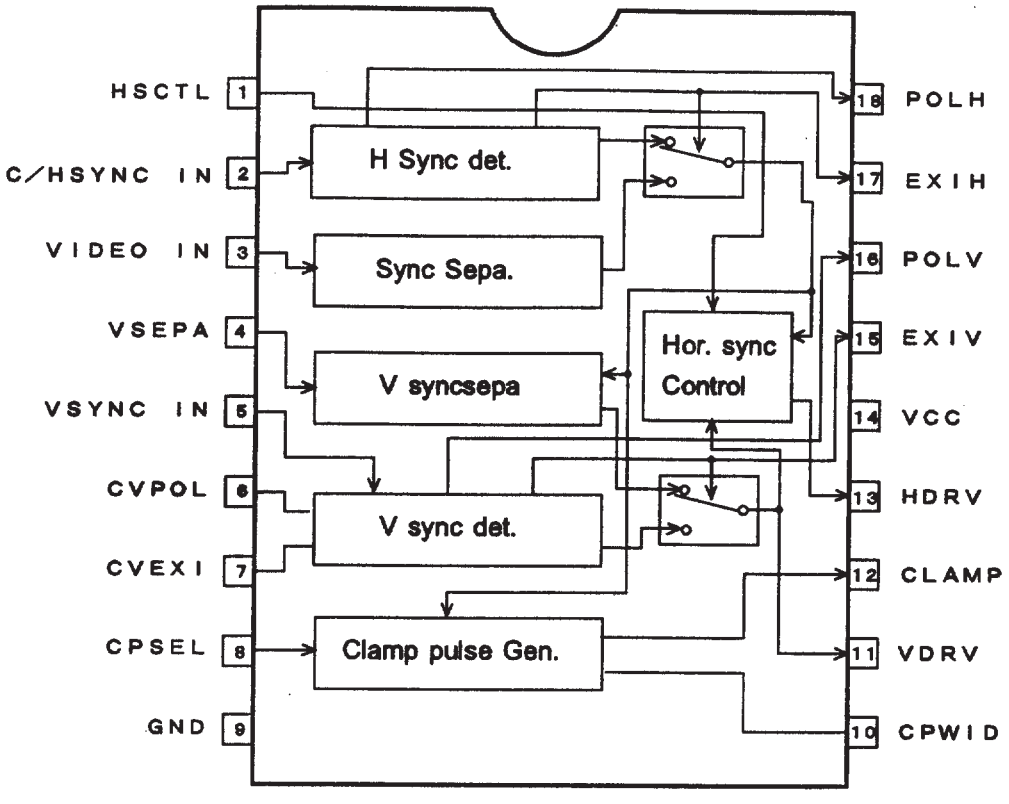
Caution:
The surface of the optical components consists of multiple dielectric layers with varying degrees of refraction. Never use organic solvents (thinner, etc.) or any kind of cleanser on these components.
Since the LCD panel is equipped with an electronic circuit, never use any liquids (water, etc.) to clean the unit. Use of liquid may cause the unit to malfunction.

■ IC Block Diagrams

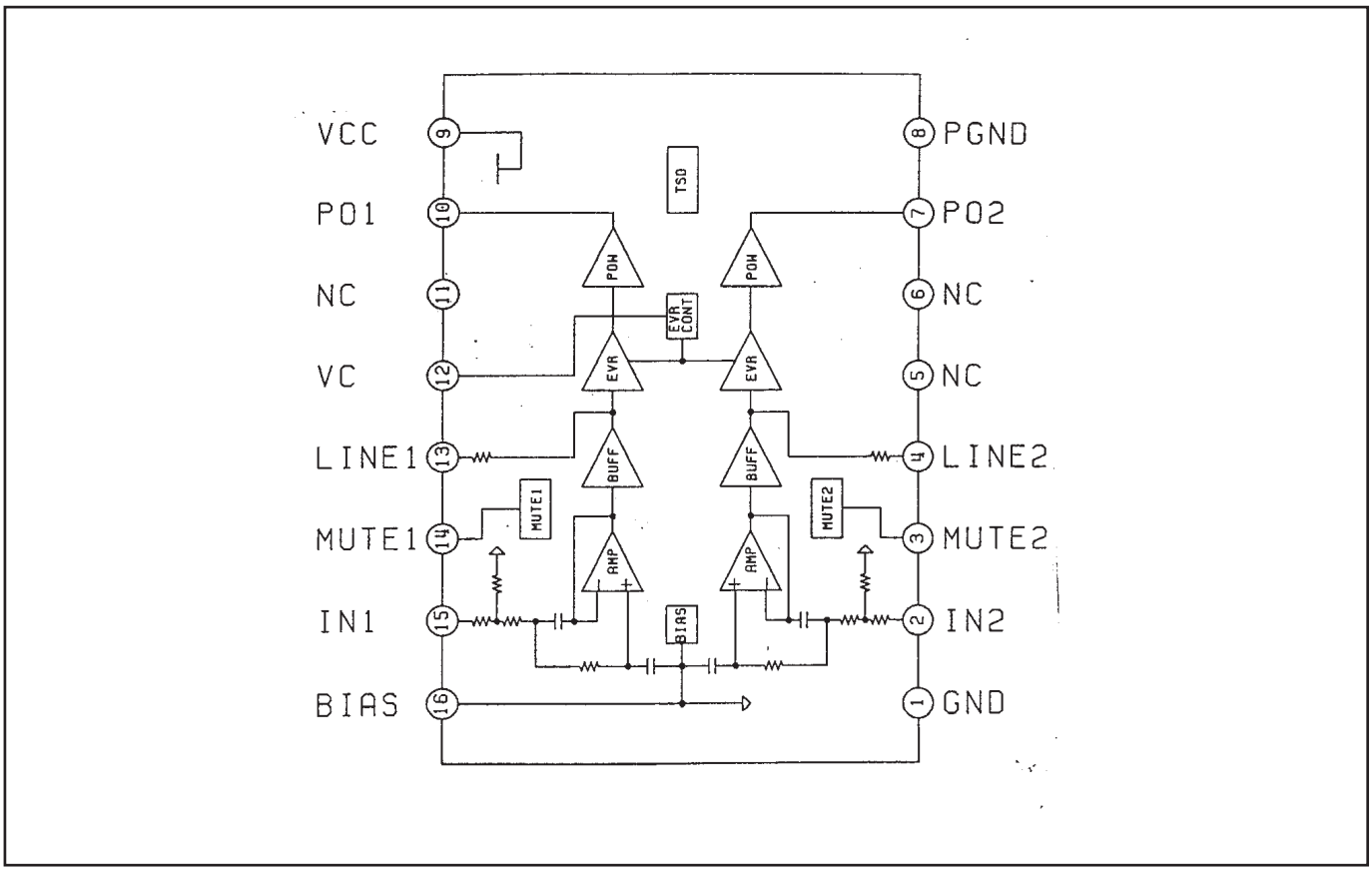
● AD8183ARU/AD8185ARU <Selector, IC101, IC201, IC5203>



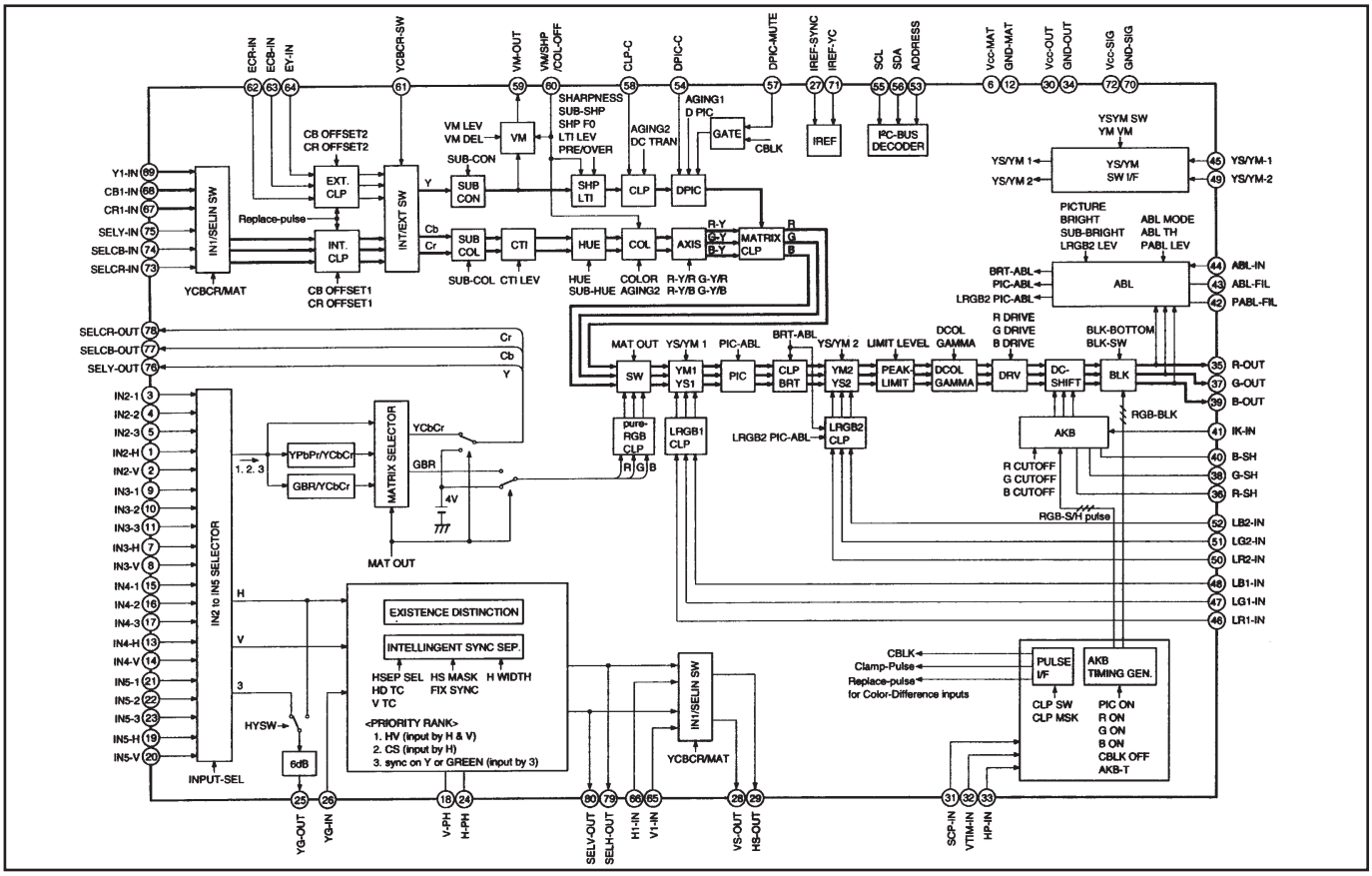
● BA7078AF <Sync Detector, IC7141>



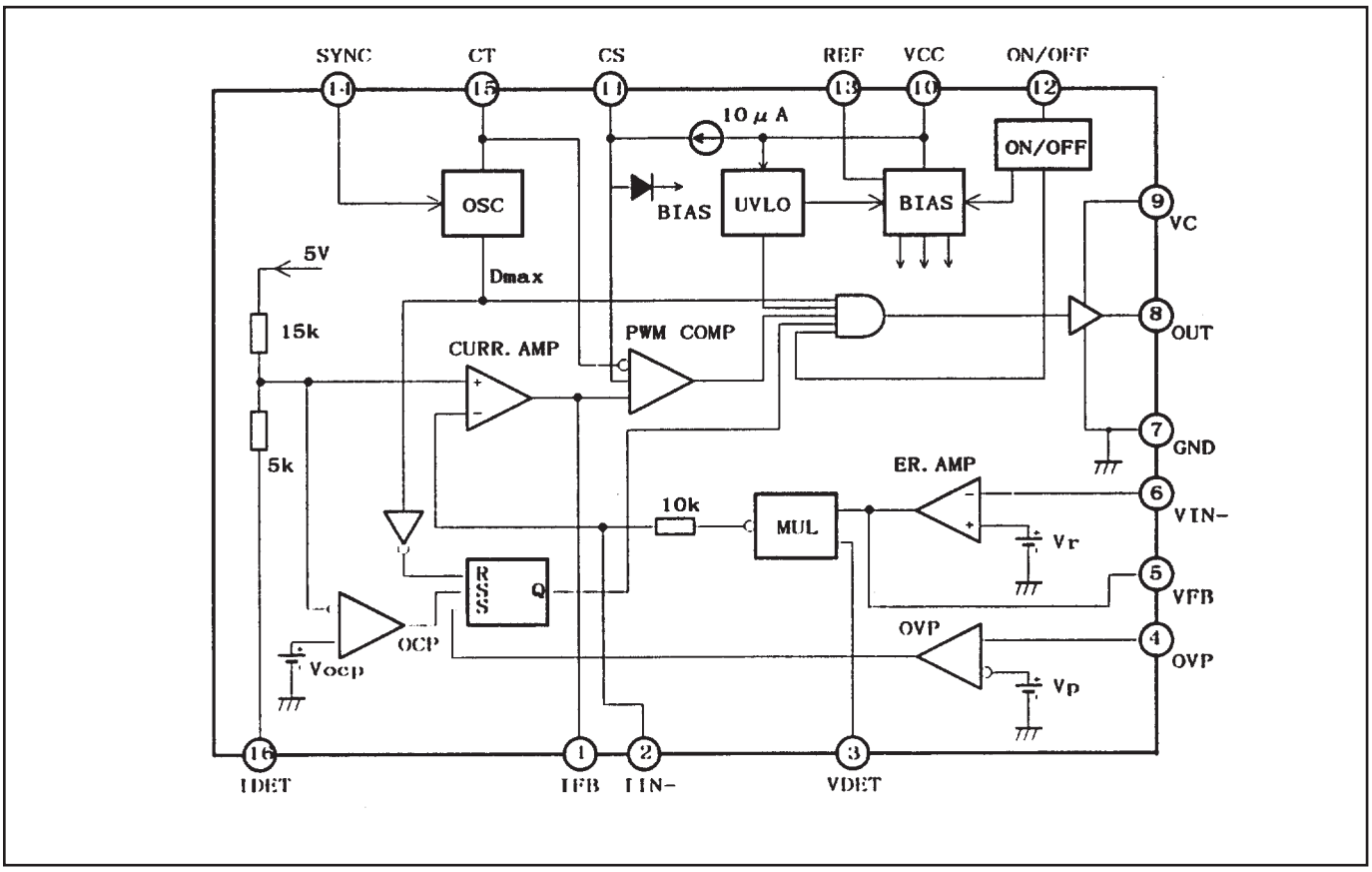
● BH3540 <Volume Control, IC1652>



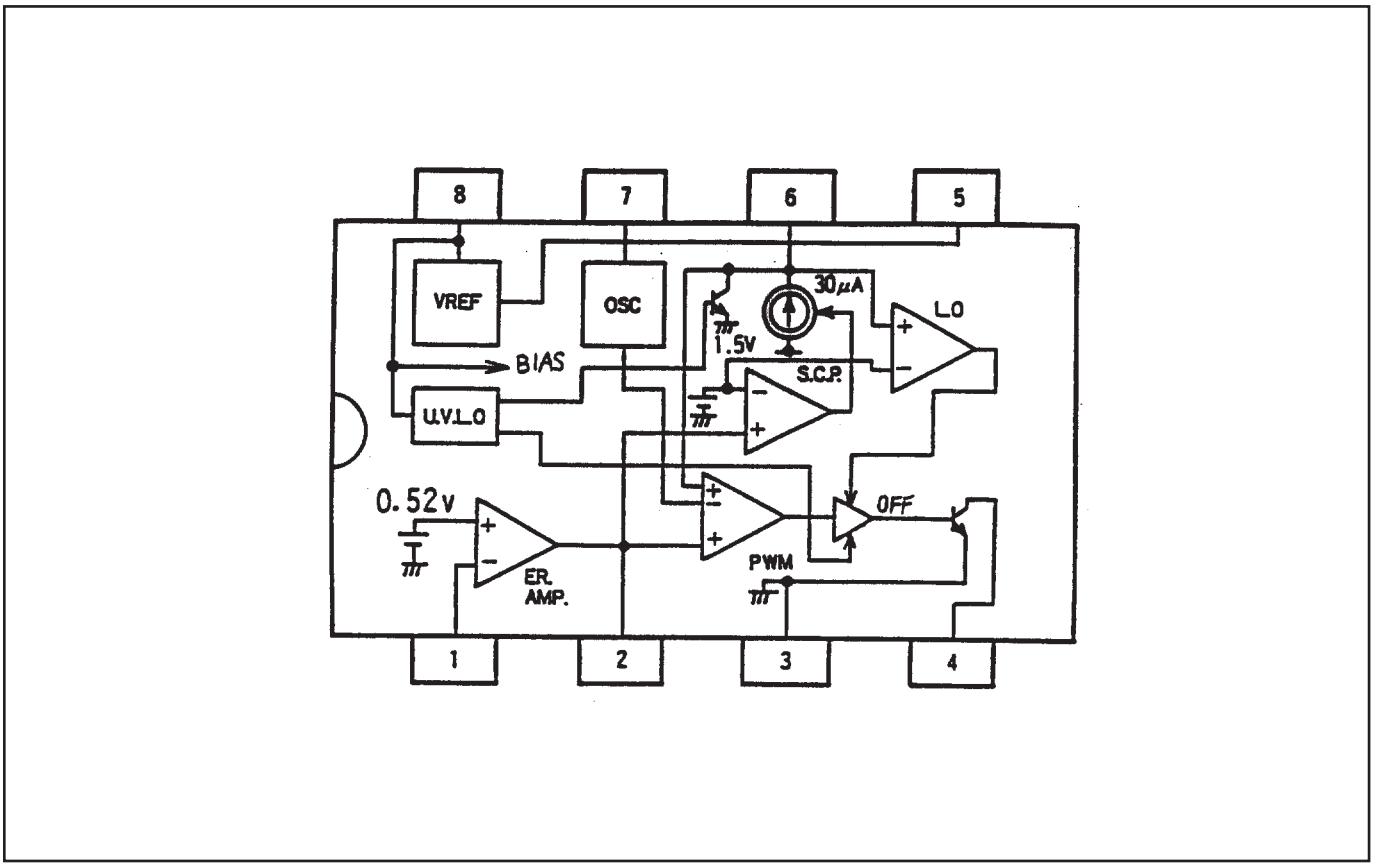
● CXA2101AQ <RGB Matrix, IC4101>



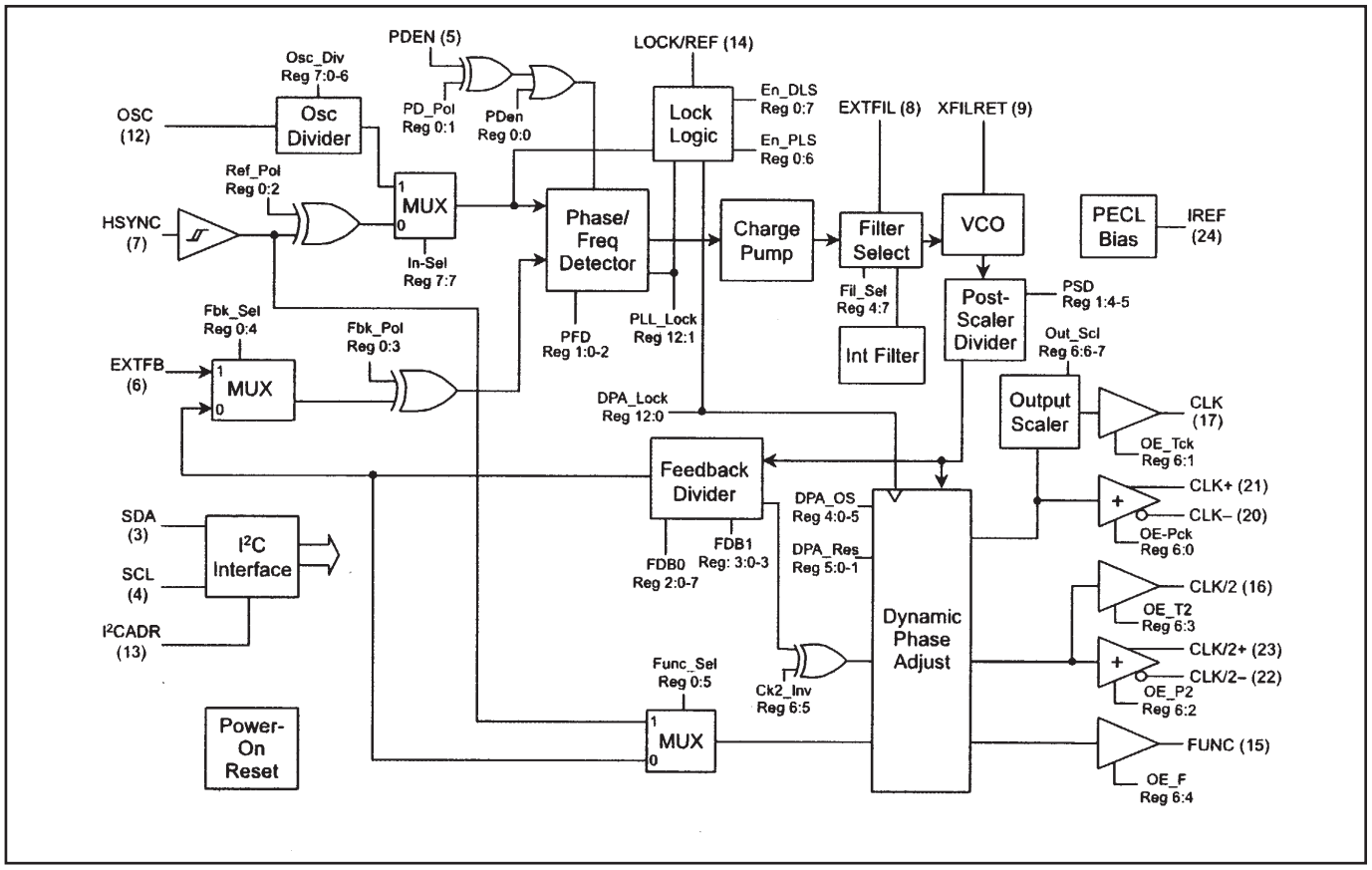
● FA5332M <P. F. Controller, IC601>



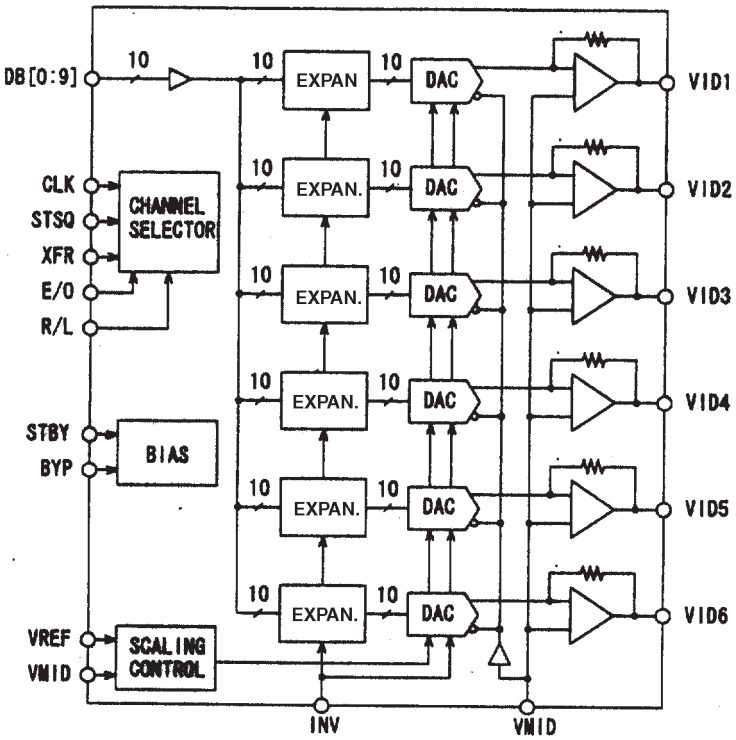
● FA7612CA <PWC Controller, IC6602, IC6603, IC6616>



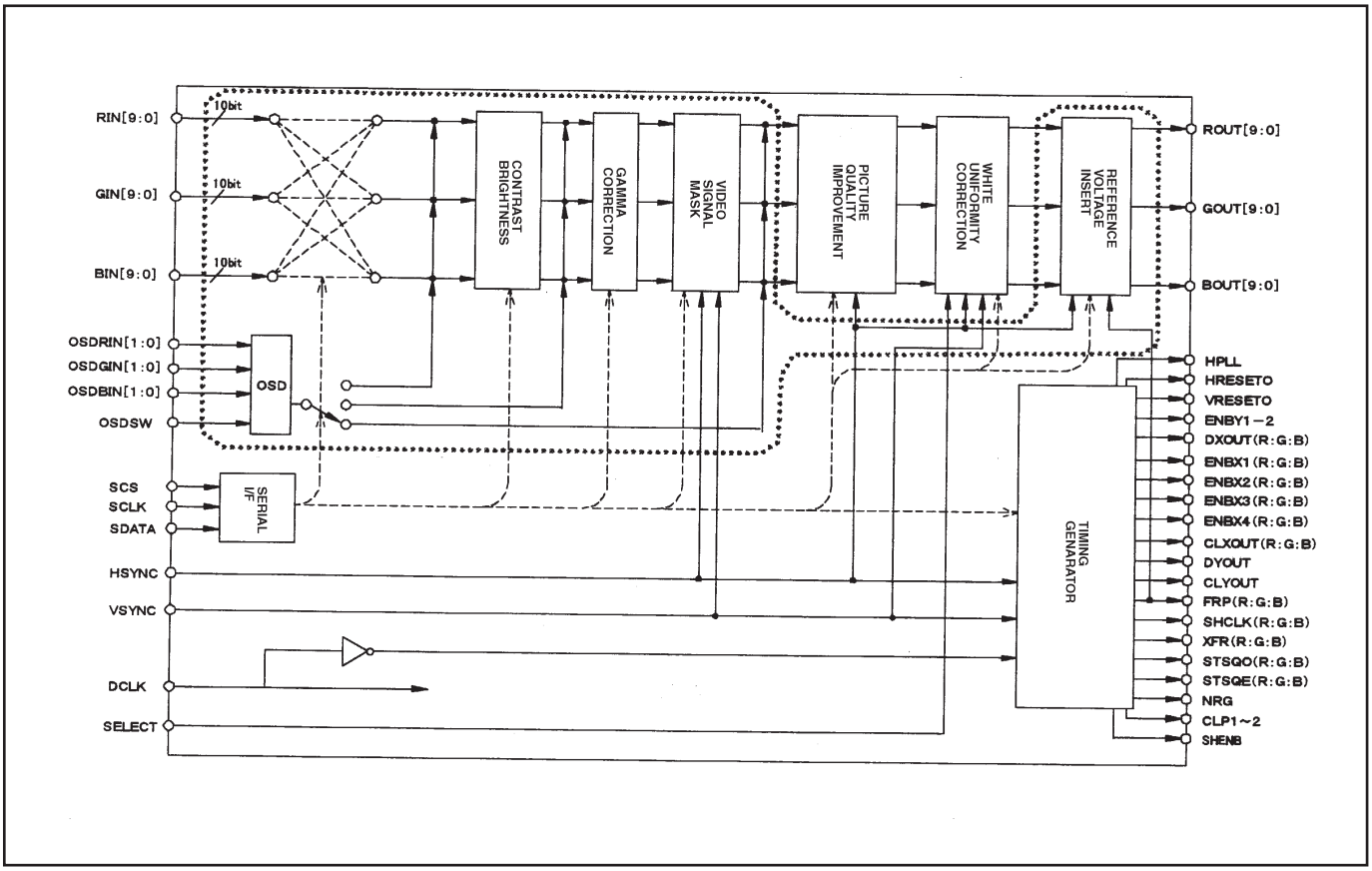
● ICS1523M <Clock Driver, IC4231>



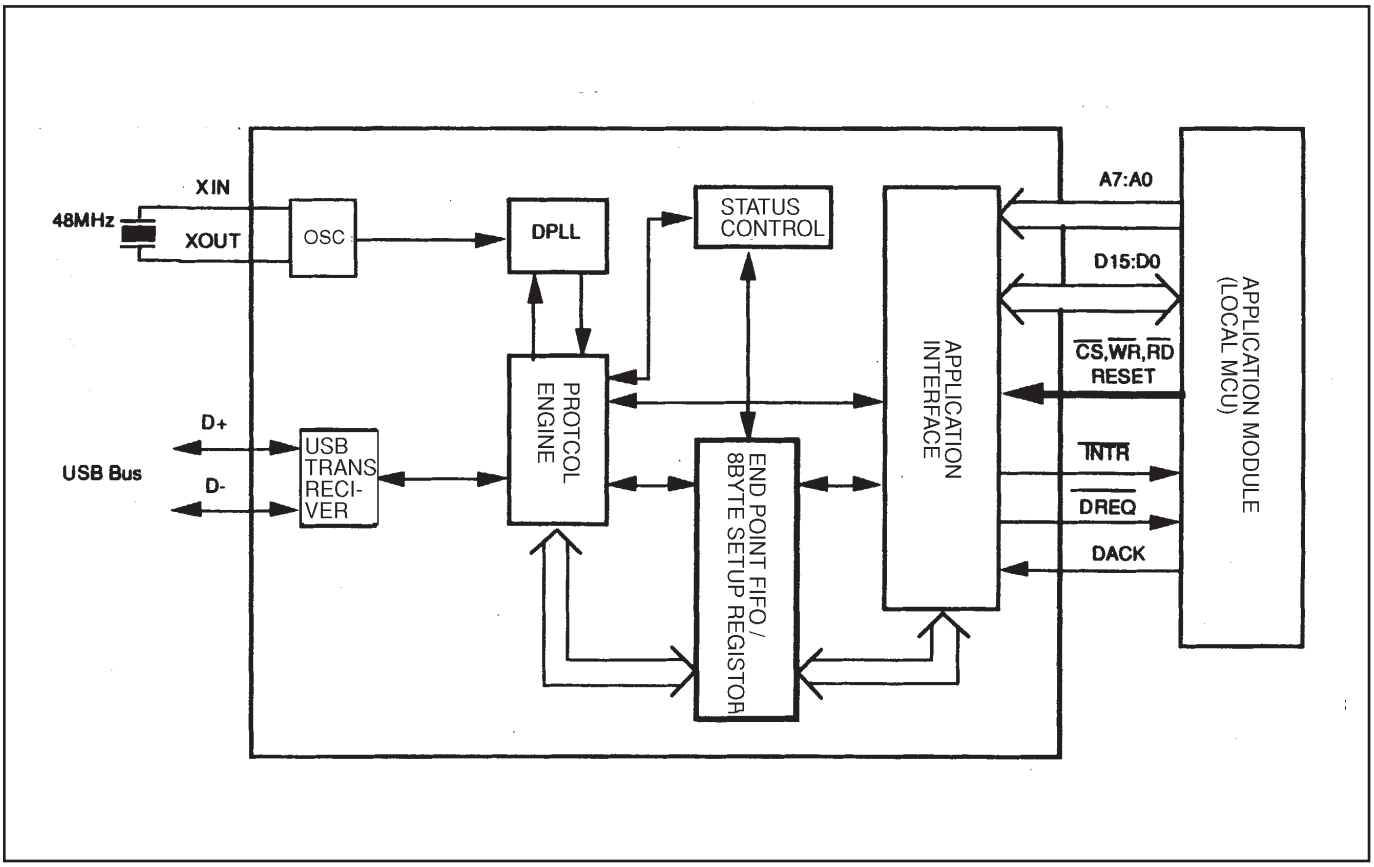
● L3E06070 <D/A-Sample & Hold, IC501, IC531, IC561, IC1501, IC1531, IC1561>



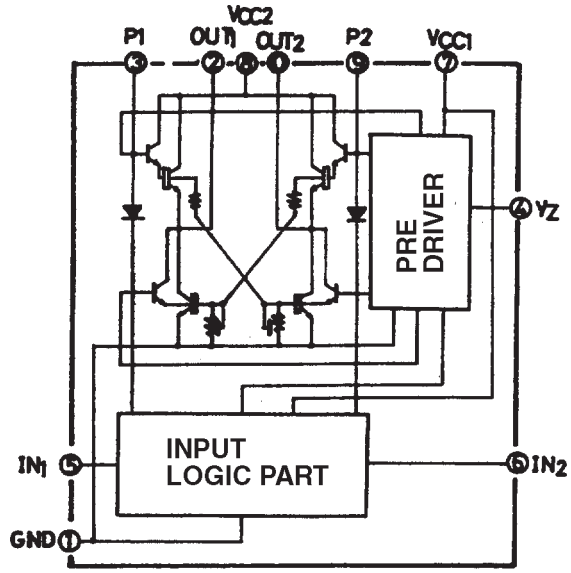
● L3E07050 <Color, Gamma Correction & Timing Controller , IC401>



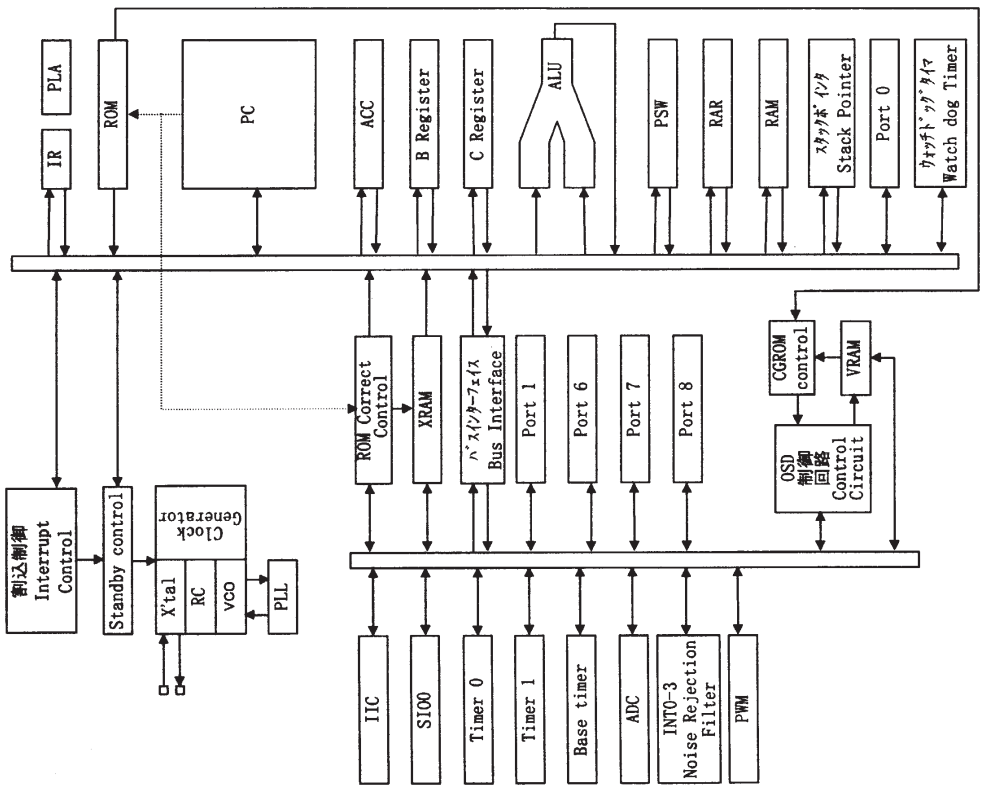
● LB1641 <Motor Drive, IC1602, IC1611>



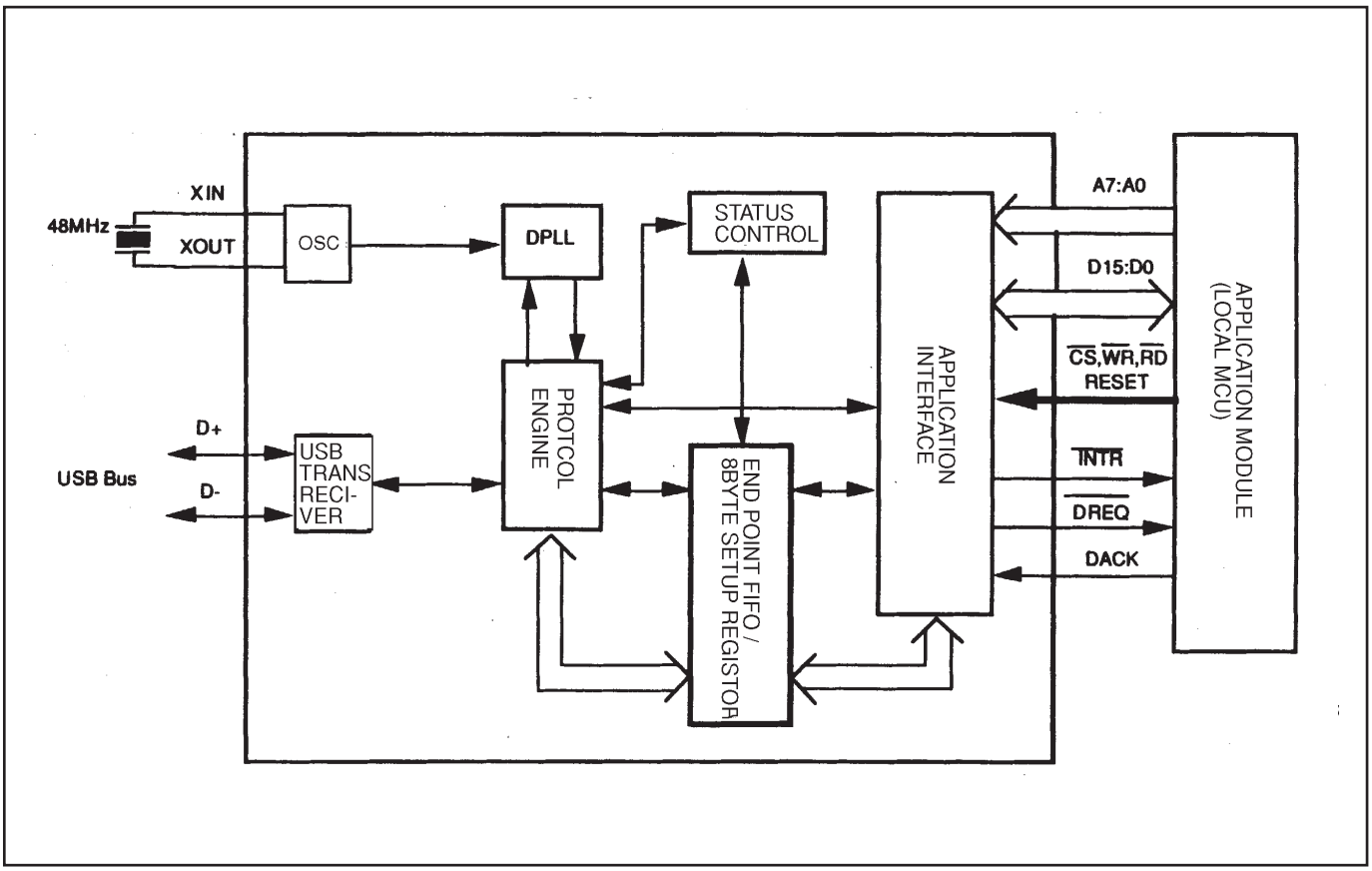
● LB1645 <Motor Drive, IC1601>



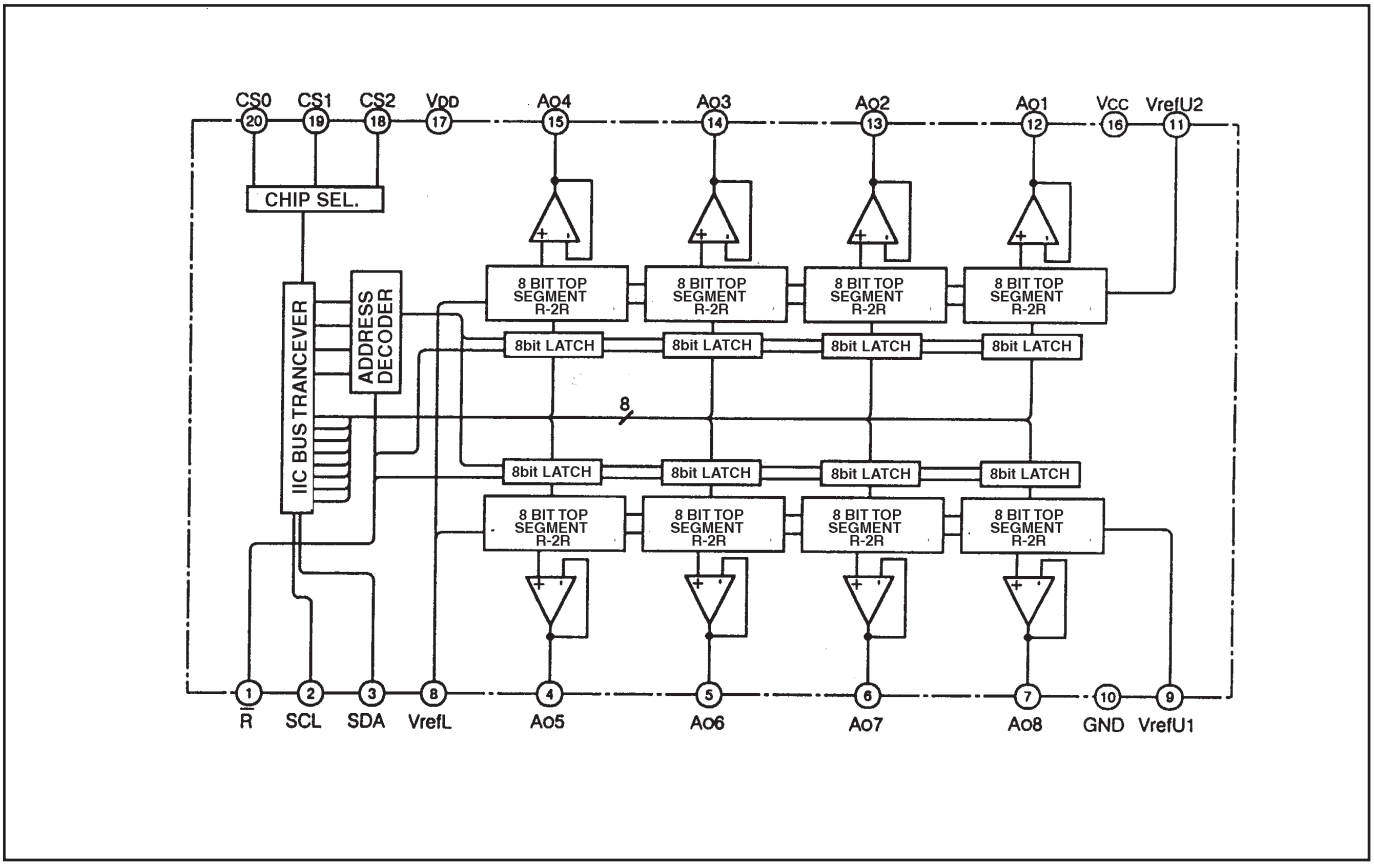
● LC863316 <SUB CPU, IC1851>



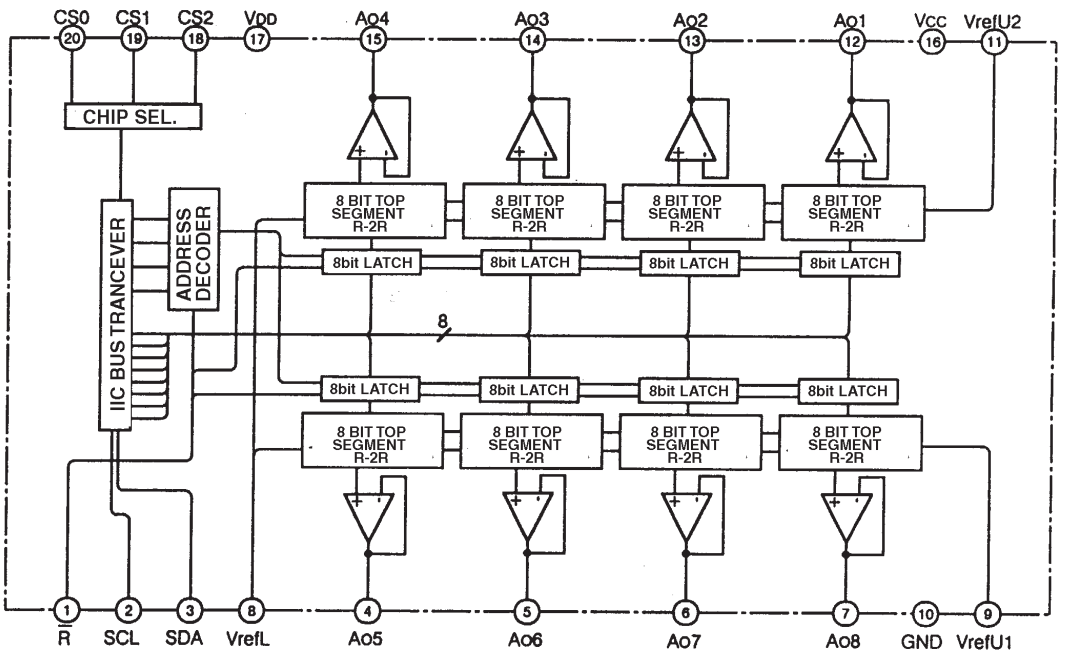
● ML60851 <USB I/F, IC9801>



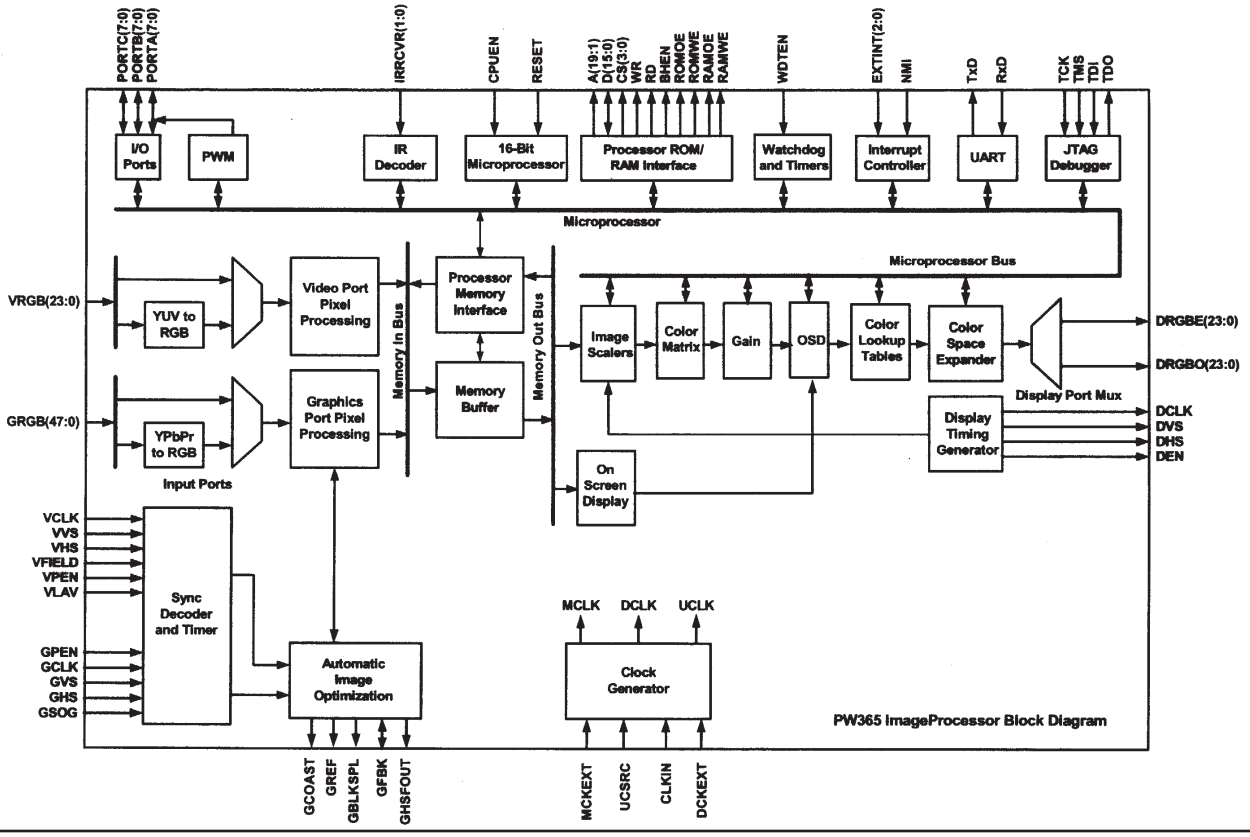
● M62393 <D/A, IC212, IC2381>


CS0 CS1 CS2 VDD AO4 AO3 AO2 AO1 VCC VrefU2
20 19 18 17 15 14 13 12 16 11
CHIP SEL.
IIC BUS TRANCEVER
ADDRESS DECODER
8 BIT TOP SEGMENT R-2R
8bit LATCH
8
R SCL SDA VrefL AO5 AO6 AO7 AO8 GND VrefU1
1 2 3 8 4 5 6 7 10 9

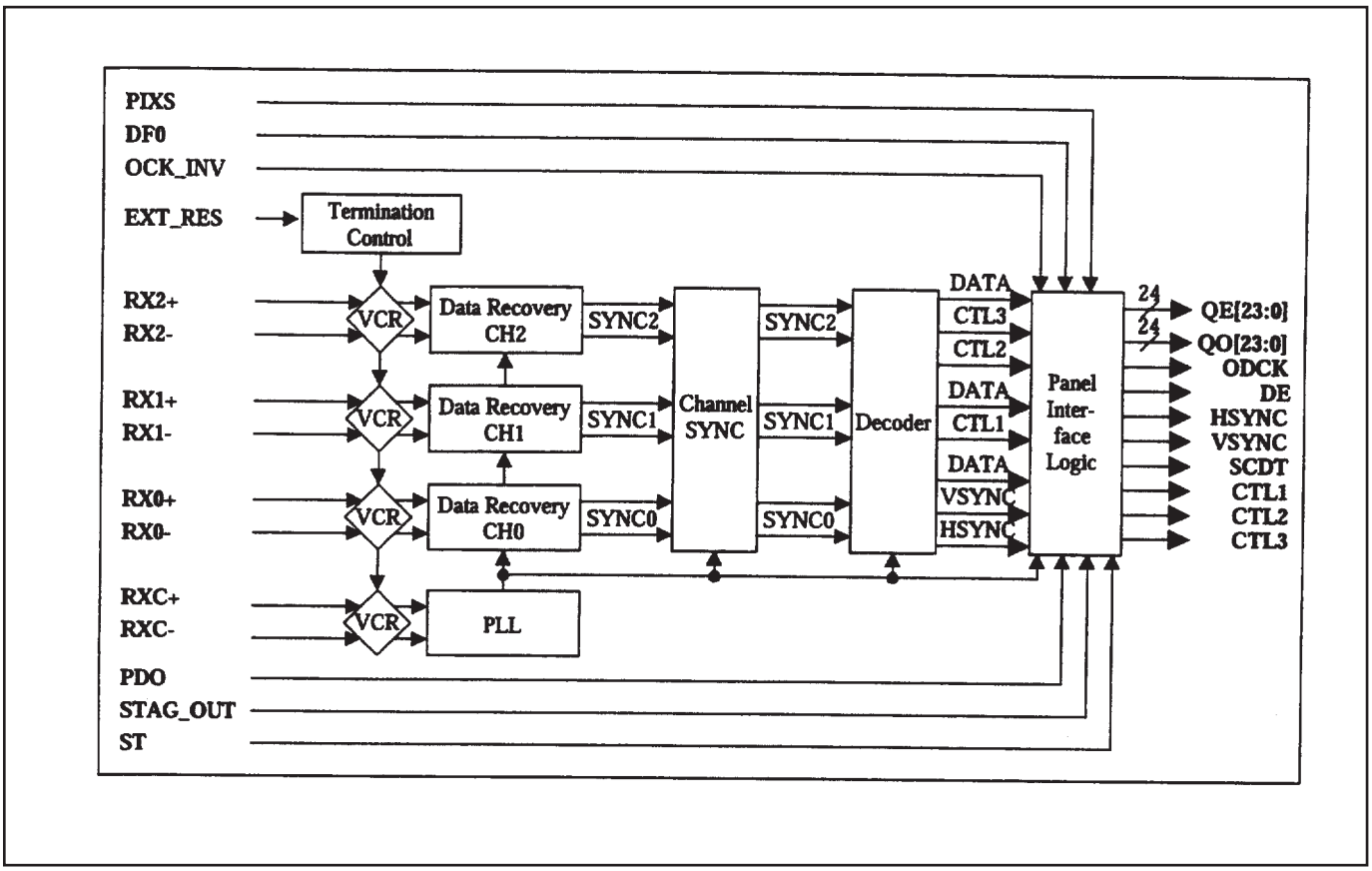
● M62399 <D/A, IC3501, IC3551>



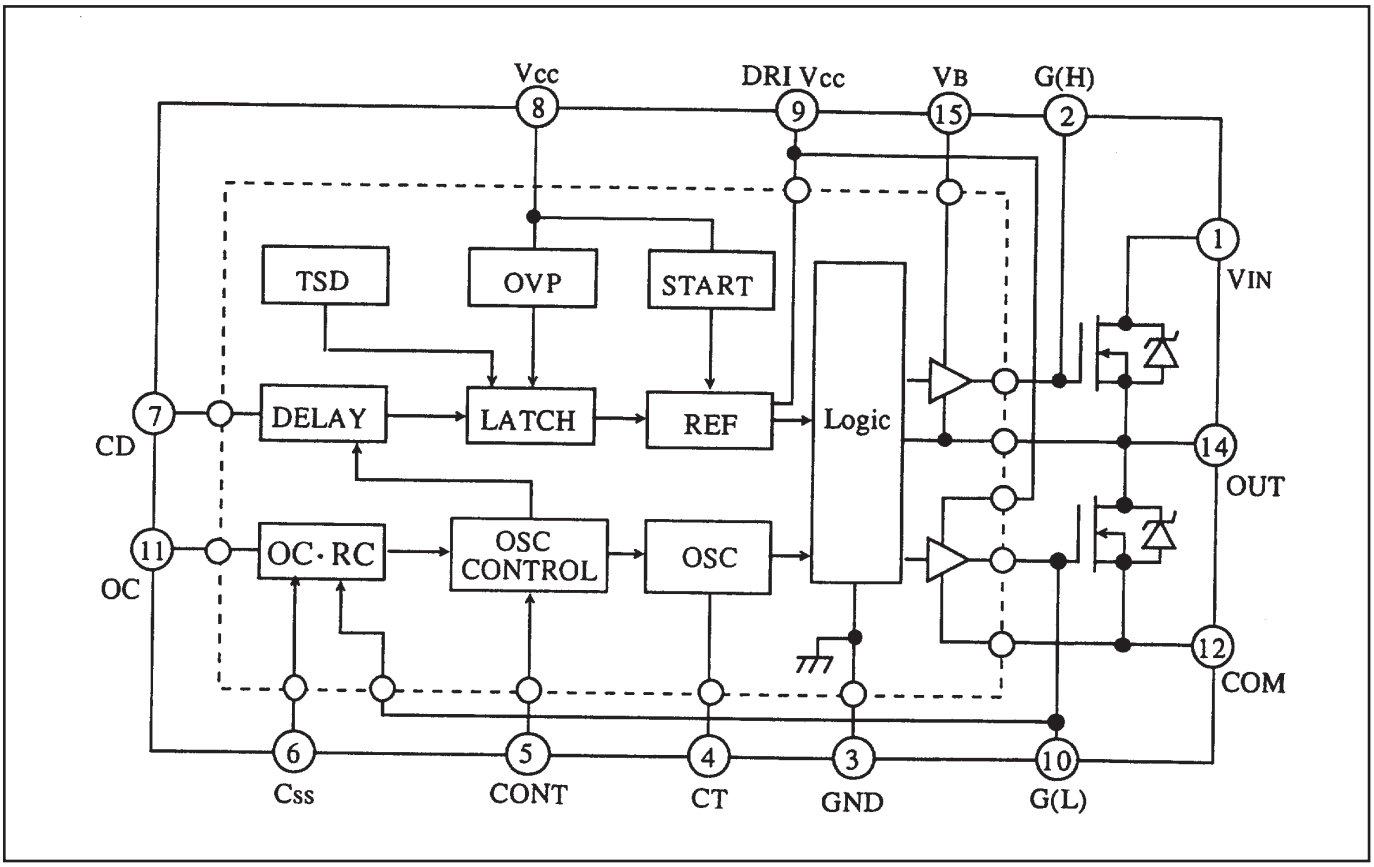
● PW365 <System Control & Scan Converter, IC301>



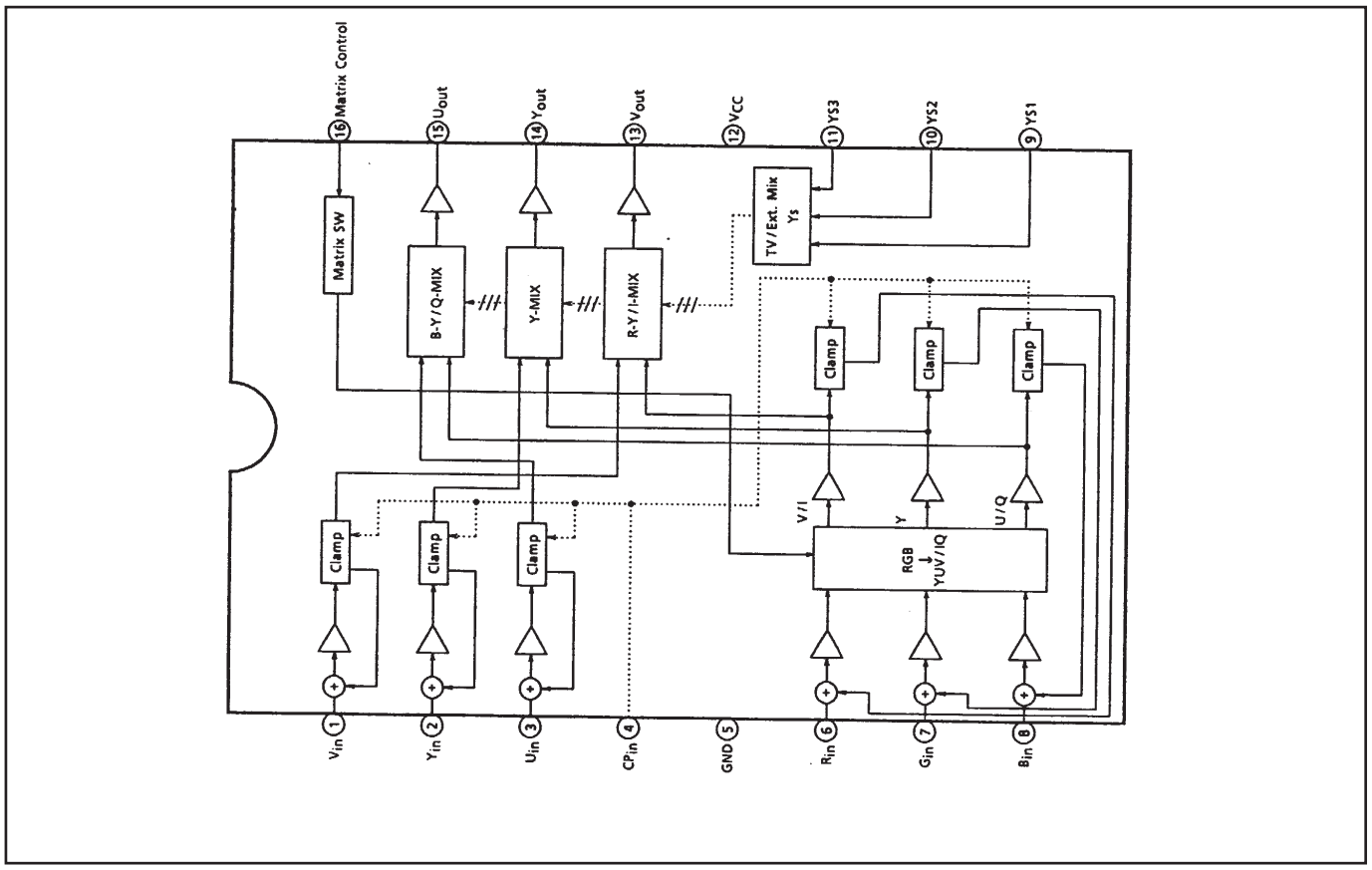
● SII161ACT <DVI I/F, IC8001>



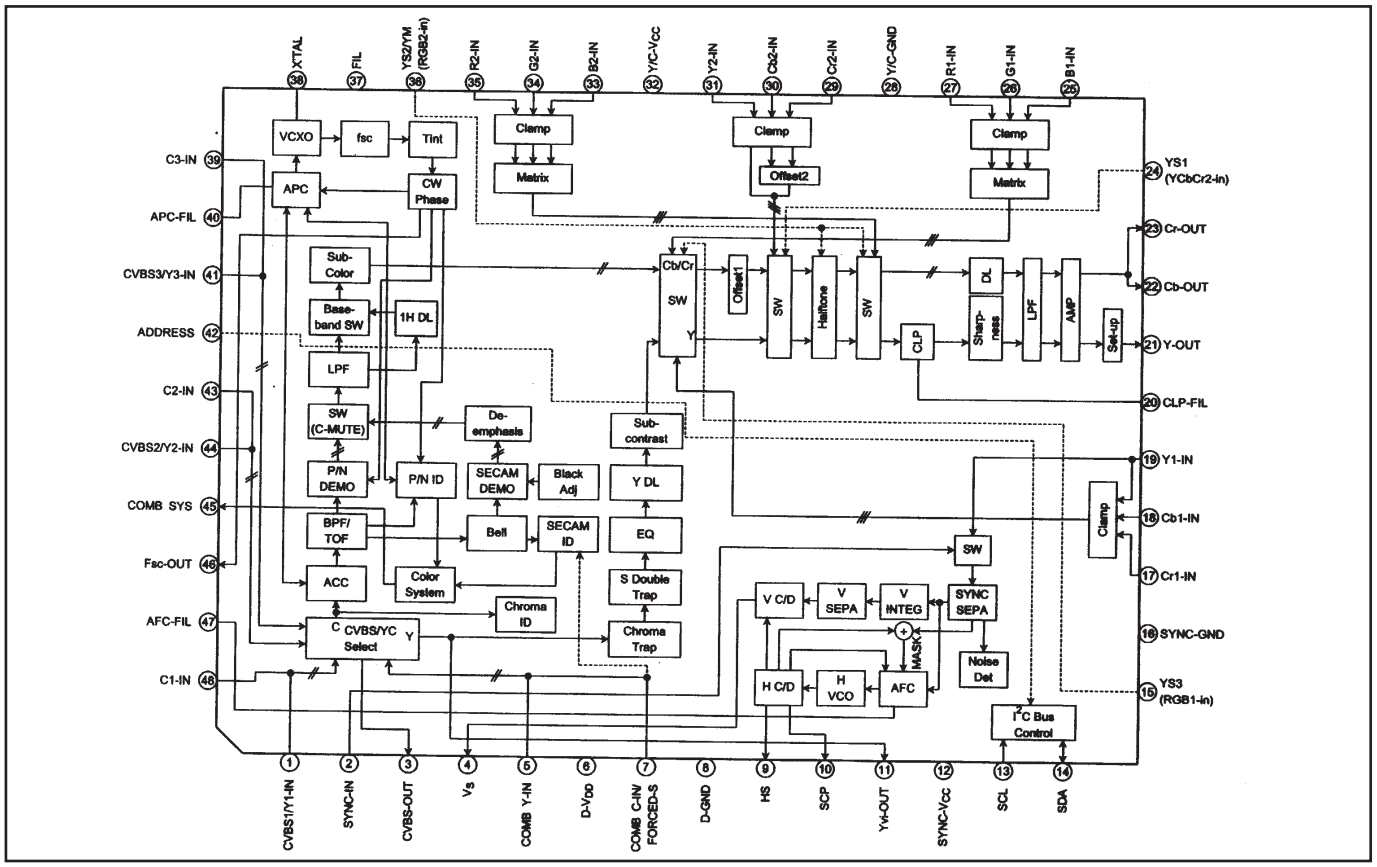
● STR-Z2156 <Power Switching, IC651>



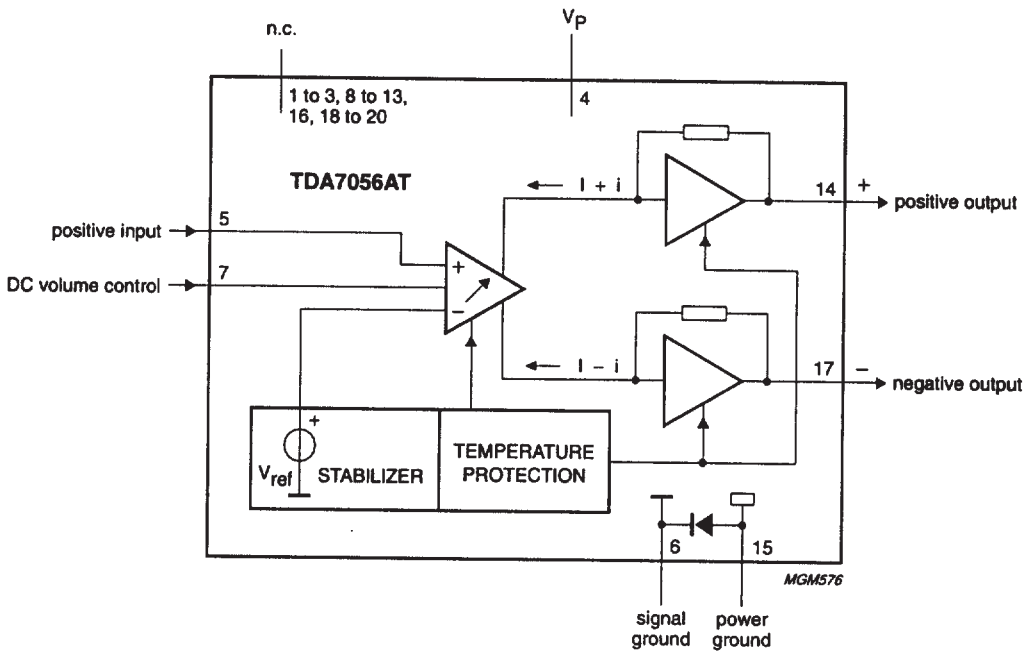
● TA1287 <RGB/YUV Converter, IC4551>



● TB1274AF <Video Decoder, IC1101>



● TDA7056 <Audio Output, IC1631, IC1632>



■ Electrical Parts List

Product safety should be considered when a component replacement is made in any area of a projector. Components indicated by a ⚠ mark in this parts list and the circuit diagram show components whose value have special significance to product safety. It is particularly recommended that only parts specified on the following parts list be used for components replacement pointed out by the mark.

● Read Description in the parts list

Read description in the Capacitor and Resistor as follows:

CAPACITOR CERAMIC 100P K 50V

Rated Voltage

Tolerance Symbols:

Less than 10pF

A : Not specified	B : ±0.1pF	C : ±0.25pF
D : ±0.5pF	E : +0 -1pF	F : ±1PF
G : ±2pF	H : +0.1 -0pF	L : +0 -0.1pF
R : ±0.25 -0pF	S : +0-0.25pF	

More than 10pF

A : Not specified	B : ±0.1%	C : ±0.25%
D : ±0.5%	F : ±1%	G : ±2%
H : ±3%	J : ±5%	K : ±10%
L : ±15%	M : ±20%	N : ±30%
P : +100-0%	Q : +30-10%	T : +50-10%
U : +75-10%	V : +20-10%	W : +100-10%
X : +40-20%	Y : +150-10%	Z : +80-20%

Rated value: P=pico farad, U=micro farad

Material:

CERAMIC	Ceramic
MT-PAPER	Metallized Paper
POLYESTER	Polyester
MT-POLYEST	Metallized Polyester
POLYPRO	Polypropylene
MT-POLYPRO	Metallized Polypropylene
COMPO FILM	Composite film
MT-COMPO	Metallized Composite
STYRENE	Styrene
TA-SOLID	Tantalum Oxide Solid Electrolytic
AL-SOLID	Aluminium Solid Electrolytic
ELECT	Aluminum Foil Electrolytic
NP-ELECT	Non-polarised Electrolytic
OS-SOLID	Aluminium Solid with Organic Semiconductive Electrolytic
POS-SOLID	Polymerized Organic Semiconductive
DL-ELECT	Double Layered Electrolytic
PPS-FILM	Polyphenylene Sulfide Film
MT-PPS-FILM	Metalized Polyphenylene Sulfide Film
MT-PEN-FILM	Metalized Polyethylenenaphthalate Film
CAPACITOR	Other

RESISTOR CARBON 4.7K J A 1/4W

Rated Wattage

Performance Symbols:

A: General B: Non flammable Z: Low noise

Other: Temperature coefficient

T: ±10ppm/°C	U: ±25ppm/°C	C: ±50ppm/°C
D: ±100ppm/°C	E: ±200ppm/°C	F: ±250ppm/°C
G: ±350ppm/°C	H: ±1000ppm/°C±10%	W: ±1200ppm/°C±10%
Y: ±1400ppm/°C±10%	J: ±2000ppm/°C±10%	K: ±2400ppm/°C±10%
L: ±2700ppm/°C±10%	M: ±3000ppm/°C±10%	N: ±3300ppm/°C±10%
P: ±3600ppm/°C±10%	Q: ±3900ppm/°C±10%	R: ±4200ppm/°C±10%
S: ±4300ppm/°C±10%	V: ±4500ppm/°C±10%	X: ±8000ppm/°C±10%

Tolerance Symbols:

A: ±0.05% B: ±0.1% C: ±0.25% D: ±0.5%
F: ±1% G: ±2% J: ±5% K: ±10%
M: ±20% P: +5-15% Z: 0 ohm

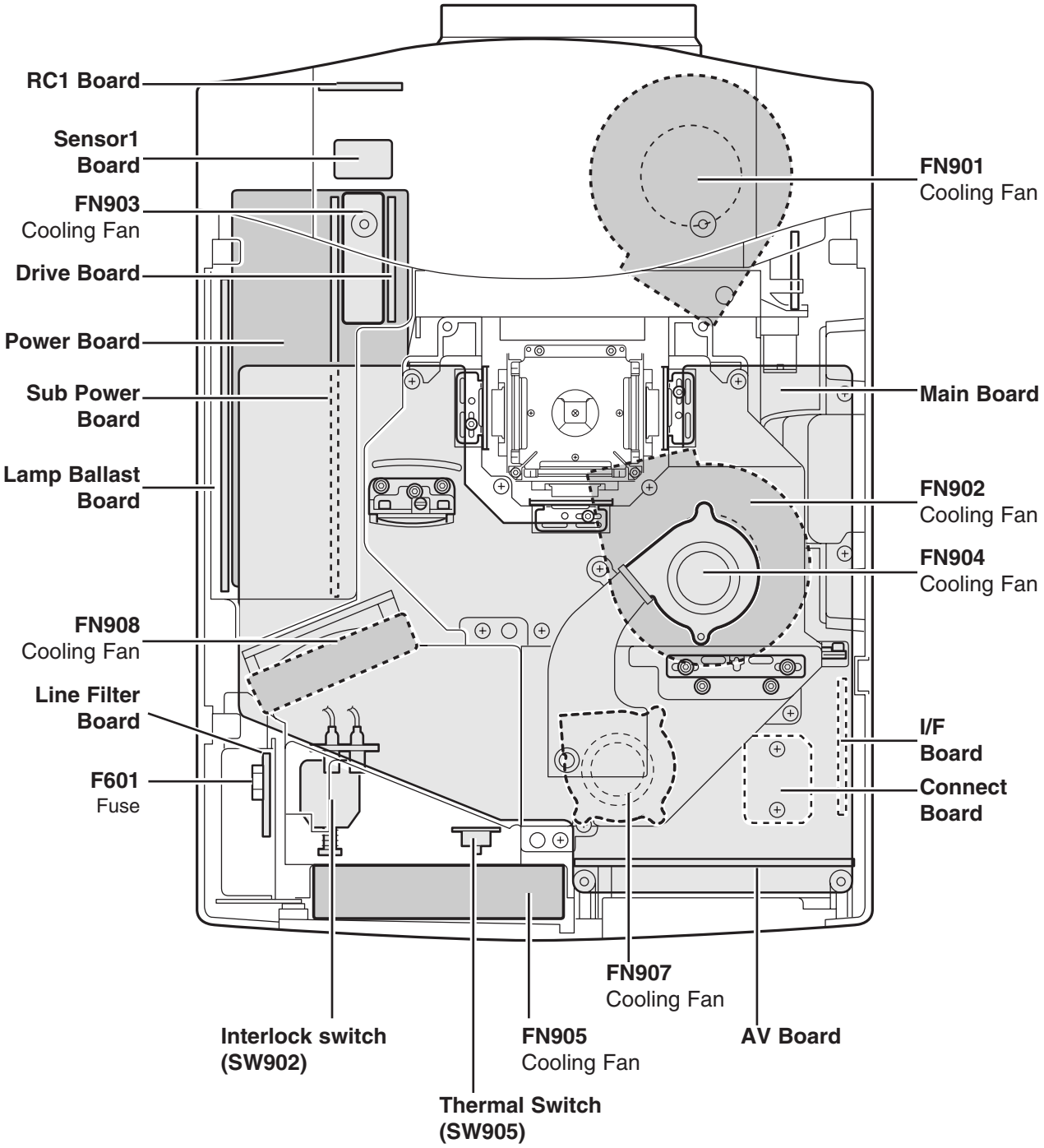
Rated value, ohms:
K: 1,000, M: 1,000,000

Material:

CARBON	Carbon
MT-FILM	Metal Film
OXIDE-MT	Oxide Metal Film
SOLID	Composition
MT-GLAZE	Metal Glaze
WIRE WOUND	Wire Wound
CERAMIC RES.	Ceramic
FUSIBLE RES.	Fusible
RESISTOR	Other

Note: Parts order must contain Chassis No., Part No., and Descriptions.

● **OUT OF CIRCUIT BOARD**



Key No.	Part No.	Description

ASSEMBLIED BOARDS

⚠	610 293 1815	ASSY,PWB,CONTROL MA8A
⚠	610 293 1839	ASSY,PWB,RC FRONT MA8A
⚠	610 293 1846	ASSY,PWB,CONNECT MA8A
⚠	610 294 8233	ASSY,PWB,SENSOR 1 MA8A
⚠	610 301 2377	ASSY,PWB,MAIN MA8SA
⚠	610 297 3631	ASSY,PWB,POWER MA8AA
⚠	610 297 3648	ASSY,PWB,SUB POWER MA8AA
⚠	610 297 3655	ASSY,PWB,DRIVE MA8AA
⚠	610 297 3662	ASSY,PWB,FILTER MA8AA
⚠	610 296 9351	ASSY,PWB,A/V MA8AA
⚠	610 296 9368	ASSY,PWB,I/F MA8AA

OUT OF CIRCUIT BOARDS

⚠ LF901	645 045 2154	UNIT,NOISE FILTER
LP900	610 297 3891	COMPL,OPTICAL LAMP-MA8AA
L901	645 003 3834	CORE,FERRITE
L902	645 003 3834	CORE,FERRITE

MISCELLANEOUS

⚠ A901	645 051 9338	UNIT,BALLAST
⚠ FN901	645 047 9700	MOTOR,FAN DC 11W
⚠ FN902	645 047 9700	MOTOR,FAN DC 11W
⚠ FN903	645 053 7523	MOTOR,FAN DC 1.68W
⚠ FN904	645 053 7523	MOTOR,FAN DC 1.68W
⚠ FN905	645 047 9489	MOTOR,FAN DC 5.28W
⚠ FN906	645 048 4001	MOTOR,FAN DC 2.4W
⚠ FN907	645 052 9313	MOTOR,FAN DC 2.04W
SP901	645 047 7584	SPEAKER,8
SP902	645 047 7584	SPEAKER,8
⚠ SW902	645 031 7743	SWITCH,PUSH 2P-2TX2
⚠ SW905	645 050 3580	SWITCH,THERMAL
WCN2&8W	645 029 6420	CORD,ID CONNECTOR
W16I&8X	610 296 5476	CORD SHIELD 6P 1.5MM
W16M	610 296 0617	CONVERT CORD 4P
W16R&8T	645 050 4389	CORD,ID CONNECTOR
W16S&10T	645 051 7594	CORD,ID CONNECTOR
W28A&8U	645 050 4402	CORD,ID CONNECTOR
W66D&8D	645 049 4802	CORD,ID CONNECTOR
W66E&8E	645 049 4765	CORD,ID CONNECTOR
W66F&8G	645 050 4396	CORD,ID CONNECTOR
W66Q&66G	645 050 4372	CORD,ID CONNECTOR
W68A&8J	645 050 4426	CORD,ID CONNECTOR
W70A&8Q	645 053 7738	CORD,ID CONNECTOR
W70B&66N	645 053 7721	CORD,ID CONNECTOR
W70D&8Y	645 049 9081	CORD,ID CONNECTOR
W9B&16L	645 050 4358	CORD,ID CONNECTOR
W9C&8S	645 026 7017	CORD,ID CONNECTOR

CONTROL BOARD

610 293 1815 ASSY,PWB,CONTROL MA8A

CAPACITOR

C6871	403 164 0204	CERAMIC	0.1U Z	25V
C6881	403 164 0204	CERAMIC	0.1U Z	25V
C6891	403 164 0204	CERAMIC	0.1U Z	25V
C6892	403 164 0204	CERAMIC	0.1U Z	25V

RESISTOR

R6871	401 105 2904	MT-GLAZE	22K JA 1/16W
R6872	401 105 1600	MT-GLAZE	15K JA 1/16W
R6873	401 105 6001	MT-GLAZE	5.6K JA 1/16W
R6874	401 105 5301	MT-GLAZE	4.7K JA 1/16W
R6875	401 105 3307	MT-GLAZE	2.7K JA 1/16W
R6876	401 105 4106	MT-GLAZE	3.3K JA 1/16W
R6878	401 105 5202	MT-GLAZE	470 JA 1/16W
R6887	401 105 1501	MT-GLAZE	1.5K JA 1/16W
R6888	401 105 5202	MT-GLAZE	470 JA 1/16W
R6891	401 105 2904	MT-GLAZE	22K JA 1/16W
R6892	401 105 3802	MT-GLAZE	30K JA 1/16W
R6893	401 105 7909	MT-GLAZE	0.000 ZA 1/16W
R6894	401 105 7909	MT-GLAZE	0.000 ZA 1/16W
R6895	401 105 7909	MT-GLAZE	0.000 ZA 1/16W
R6896	401 105 7909	MT-GLAZE	0.000 ZA 1/16W
R6897	401 105 1501	MT-GLAZE	1.5K JA 1/16W
R6898	401 105 5202	MT-GLAZE	470 JA 1/16W

DIODE

D6871	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D6872	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D6881	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D6891	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D6892	407 203 7803	LED SML-210LT T86 M
D6893	407 203 7902	LED SML-210MT T86 M
D6894	407 203 7803	LED SML-210LT T86 M
D6895	407 203 7704	LED SML-210DT T86 L

MISCELLANEOUS

SW6871	645 026 2791	SWITCH,PUSH 1P-1TX1
SW6872	645 026 2791	SWITCH,PUSH 1P-1TX1
SW6873	645 026 2791	SWITCH,PUSH 1P-1TX1
SW6874	645 026 2791	SWITCH,PUSH 1P-1TX1
SW6875	645 026 2791	SWITCH,PUSH 1P-1TX1
SW6876	645 026 2791	SWITCH,PUSH 1P-1TX1
SW6878	645 026 2791	SWITCH,PUSH 1P-1TX1
SW6887	645 026 2791	SWITCH,PUSH 1P-1TX1
SW6888	645 026 2791	SWITCH,PUSH 1P-1TX1
SW6891	645 026 2791	SWITCH,PUSH 1P-1TX1
SW6892	645 026 2791	SWITCH,PUSH 1P-1TX1
SW6897	645 026 2791	SWITCH,PUSH 1P-1TX1
SW6898	645 026 2791	SWITCH,PUSH 1P-1TX1

RC FRONT BOARD

610 293 1839 ASSY,PWB,RC FRONT MA8A

CAPACITOR

C2801	403 283 6309	CERAMIC	1U Z	10V
C2802	403 157 6206	CERAMIC	220P K	50V
C2803	403 304 2105	ELECT	47U M	6.3V

RESISTOR

R2801	401 105 0405	MT-GLAZE	100 JA 1/16W
R2802	401 105 0405	MT-GLAZE	100 JA 1/16W
R2803	401 105 7909	MT-GLAZE	0.000 ZA 1/16W

MISCELLANEOUS

AU2801	645 034 5029	UNIT,REMOCON RECEIVER

CONNECT BOARD

610 293 1846 ASSY,PWB,CONNECT MA8A

Key No.	Part No.	Description
SENSOR 1 BOARD		
610 294 8233 ASSY,PWB,SENSOR 1 MA8A		
INTEGRATED CIRCUIT		
IC1691	409 481 8602	IC LM76CHMX-5
CAPACITOR		
C1691	403 281 5205	CERAMIC 0.22U Z 16V
C1692	403 155 1609	CERAMIC 33P J 50V
C1693	403 155 1609	CERAMIC 33P J 50V
RESISTOR		
R1691	401 105 0405	MT-GLAZE 100 JA 1/16W
R1692	401 105 0306	MT-GLAZE 10 JA 1/16W
R1693	401 105 0306	MT-GLAZE 10 JA 1/16W
MAIN BOARD		
610 301 2377 ASSY,PWB,MAIN MA8SA		
TRANSISTOR		
Q1101	405 014 4509	TR 2SC2412K T146 R
Q1141	405 134 5905	TR 2SA1037AK-T146-R
Q1142	405 134 5905	TR 2SA1037AK-T146-R
Q1143	405 014 4509	TR 2SC2412K T146 R
Q1144	405 134 5905	TR 2SA1037AK-T146-R
Q1145	405 014 4509	TR 2SC2412K T146 R
Q1146	405 134 5905	TR 2SA1037AK-T146-R
Q1147	405 134 5905	TR 2SA1037AK-T146-R
Q1148	405 134 5905	TR 2SA1037AK-T146-R
Q1149	405 014 4509	TR 2SC2412K T146 R
Q1151	405 134 5905	TR 2SA1037AK-T146-R
Q1161	405 134 5905	TR 2SA1037AK-T146-R
Q1163	405 134 5905	TR 2SA1037AK-T146-R
Q141	405 014 4509	TR 2SC2412K T146 R
Q142	405 014 4509	TR 2SC2412K T146 R
Q143	405 014 4509	TR 2SC2412K T146 R
Q144	405 134 5905	TR 2SA1037AK-T146-R
Q145	405 014 4509	TR 2SC2412K T146 R
Q146	405 014 4509	TR 2SC2412K T146 R
Q147	405 014 4509	TR 2SC2412K T146 R
Q148	405 134 5905	TR 2SA1037AK-T146-R
Q149	405 014 4509	TR 2SC2412K T146 R
Q2101	405 014 4509	TR 2SC2412K T146 R
Q2102	405 014 4509	TR 2SC2412K T146 R
Q2301	405 014 4509	TR 2SC2412K T146 R
Q2302	405 014 4509	TR 2SC2412K T146 R
Q2303	405 014 4509	TR 2SC2412K T146 R
Q2304	405 079 2809	TR IMX1-T110
Q2305	405 014 4509	TR 2SC2412K T146 R
Q2501	405 014 4509	TR 2SC2412K T146 R
Q2511	405 014 4509	TR 2SC2412K T146 R
Q2521	405 014 4509	TR 2SC2412K T146 R
Q3103	405 014 4509	TR 2SC2412K T146 R
Q3111	405 134 5905	TR 2SA1037AK-T146-R
Q3112	405 134 5905	TR 2SA1037AK-T146-R
Q3113	405 134 5905	TR 2SA1037AK-T146-R
Q3116	405 014 4509	TR 2SC2412K T146 R
Q3117	405 014 4509	TR 2SC2412K T146 R
Q3118	405 014 4509	TR 2SC2412K T146 R
Q3301	405 014 4509	TR 2SC2412K T146 R
Q3302	405 014 4509	TR 2SC2412K T146 R
Q3571	405 014 4509	TR 2SC2412K T146 R
Q3601	405 002 8304	TR 2SA1203-Y-TE12L
Q3602	405 014 4509	TR 2SC2412K T146 R
Q4101	405 014 4509	TR 2SC2412K T146 R
Q4102	405 134 5905	TR 2SA1037AK-T146-R
Q4103	405 014 4509	TR 2SC2412K T146 R
Q4151	405 014 4509	TR 2SC2412K T146 R
Q4152	405 014 4509	TR 2SC2412K T146 R
Q4161	405 014 4509	TR 2SC2412K T146 R
Q4162	405 014 4509	TR 2SC2412K T146 R
Q4171	405 014 4509	TR 2SC2412K T146 R
Q4172	405 014 4509	TR 2SC2412K T146 R
Q4182	405 014 4509	TR 2SC2412K T146 R
Q4185	405 134 5905	TR 2SA1037AK-T146-R
Q4801	405 134 5905	TR 2SA1037AK-T146-R
Q4802	405 134 5905	TR 2SA1037AK-T146-R
Q4803	405 134 5905	TR 2SA1037AK-T146-R
Q4804	405 134 5905	TR 2SA1037AK-T146-R
Q4805	405 014 4509	TR 2SC2412K T146 R
Q4807	405 014 4509	TR 2SC2412K T146 R
Q4808	405 014 4509	TR 2SC2412K T146 R
Q9801	405 134 5905	TR 2SA1037AK-T146-R
Q9802	405 014 4509	TR 2SC2412K T146 R
INTEGRATED CIRCUIT		
IC1101	409 453 9309	IC UPD64082GF-3BA
IC1131	410 342 8808	IC MSM54V16258BSL-40TS-K
IC1141	409 051 2900	IC TC4053BF(EL)
IC1161	409 416 6406	IC BA033FP-E2
IC141	410 300 4804	IC MM1031XM
IC1501	409 502 3302	IC L3E06070D0A
IC1531	409 502 3302	IC L3E06070D0A
IC1561	409 502 3302	IC L3E06070D0A
IC1801	409 475 3705	IC M66500FP
IC1802	410 364 6905	IC TC74ACT138FT-EL
IC1841	409 521 8708	IC MC74HCT244A
	410 315 5506	IC HD74HCT244TV
IC1851	410 398 2706	IC LC863316A-5W09
IC1871	409 481 8602	IC LM76CHMX-5
IC1872	409 481 8602	IC LM76CHMX-5
IC201	409 470 2604	IC AD8183ARU
IC2101	409 504 5007	IC TC90A69F
IC211	409 357 6602	IC LT1260CS
IC212	409 458 3401	IC M62393FP
IC213	410 343 7008	IC SN74AHCT1G14DBVR
IC2301	409 523 4807	IC AD9883AKST-110
IC2302	409 416 6406	IC BA033FP-E2
	409 410 1001	IC UPC2933T-E1
IC2303	409 416 6406	IC BA033FP-E2
	409 410 1001	IC UPC2933T-E1
IC231	409 504 8206	IC AD9886KS-140
	409 502 3104	IC AD9887KS-140
IC232	409 416 6406	IC BA033FP-E2
	409 410 1001	IC UPC2933T-E1
IC233	409 323 8906	IC TC4W53FU(TE12L)
IC234	409 416 6406	IC BA033FP-E2
	409 410 1001	IC UPC2933T-E1
IC2381	409 458 3401	IC M62393FP
IC301	409 501 8308	IC PW365-10U
IC304	409 339 3605	IC 24LC16BT/SN-T
IC306	409 301 5309	IC TC7S32FU-TE85L
IC3101	409 504 9005	IC TB1274AF
IC3102	409 416 6505	IC BA05FP-E2
IC3103	409 416 6505	IC BA05FP-E2
IC3211	410 321 8300	IC TC74VCX16244FT
IC3212	410 321 8300	IC TC74VCX16244FT
IC3213	410 321 8300	IC TC74VCX16244FT
IC3214	410 362 6501	IC TC74LCX541FT
IC3221	409 429 6806	IC TC74LCX74FT-(EL)
IC3224	410 362 6501	IC TC74LCX541FT
IC3231	410 358 1503	IC TC74HC4053AFT(EL)

Electrical Parts List

Key No.	Part No.	Description
IC3381	409 398 1901	IC L88MS05TL-TL
IC341	410 352 8508	IC IDT71V016S15PHTR
	410 397 0406	IC IS61LV6416-15T
IC3501	409 428 9600	IC M62399FP
IC3502	409 431 2308	IC BA12FP-E2
IC351	410 430 6006	IC MBM29LV800TA90NB989
IC351A	410 354 3808	IC MBM29LV800TA-90PFTN
IC3551	409 428 9600	IC M62399FP
IC361	409 501 9107	IC ICS512MT
IC3611	409 502 3203	IC L3E01031F0A
IC362	409 501 9107	IC ICS512MT
IC3631	409 502 3203	IC L3E01031F0A
IC3651	409 502 3203	IC L3E01031F0A
IC3671	409 390 0001	IC LM7171AIMX
	409 486 7709	IC LM7171BIMX
IC3681	409 343 0201	IC LT1206CS8
IC391	409 416 6406	IC BA033FP-E2
	409 410 1001	IC UPC2933T-E1
IC392	409 534 1703	IC SI-3025LSA-TL
IC401	409 502 3401	IC QL3E07050 K0A
IC4101	409 474 0002	IC CXA2101AQ
IC4111	409 422 5400	IC MC74AC04DT
	409 423 7205	IC TC74AC04FT
	410 357 4208	IC SN74LV04APWR
IC4181	409 051 2900	IC TC4053BF(EL)
IC4201	409 498 4406	IC T8F01HF
IC4211	409 498 6103	IC LM385M-1.2
IC4231	409 444 8700	IC ICS1523M-ER
IC4232	409 439 8906	IC TC7WH125FU
IC4261	409 344 1900	IC MN1382-Q-TX
IC4501	410 403 7900	IC LC24085BT-UG4
IC451	409 534 1703	IC SI-3025LSA-TL
IC4551	409 504 4901	IC TA1287F
IC4801	409 416 6406	IC BA033FP-E2
	409 410 1001	IC UPC2933T-E1
IC501	409 502 3302	IC L3E06070D0A
IC531	409 502 3302	IC L3E06070D0A
IC561	409 502 3302	IC L3E06070D0A
IC6301	410 365 4603	IC MS82V16520-8AGA
IC8001	410 365 2203	IC SII161ACT100
IC8003	409 051 2900	IC TC4053BF(EL)
IC8004	409 487 5803	IC 24C01CT/SN
IC801	410 406 5408	IC HD64F7045F28-B867
IC802	409 344 1900	IC MN1382-Q-TX
IC803	410 428 9804	IC M5M29JB160AVP-10-B976
IC804	410 352 4302	IC M5M51008BFPP-70L
	410 365 1602	IC M5M51008BFP-70LL
	410 367 1501	IC M5M51008CFP-70HI
	410 415 5208	IC M5M51008DFP-70HI
IC808	409 339 3605	IC 24LC16BT/SN-T
IC811	409 155 8006	IC TC7S04F-TE85L
IC812	410 325 4704	IC HD74LVC244AT
IC813	409 152 5404	IC TC7S08F-TE85L
IC814	410 362 6501	IC TC74LCX541FT
IC815	410 362 6501	IC TC74LCX541FT
IC816	410 362 6600	IC TC74ACT541FT
IC9401	410 403 7900	IC LC24085BT-UG4
IC9801	409 468 8908	IC ML60851CTB
	409 521 4502	IC ML60851DTB
IC9821	409 521 8708	IC MC74HCT244A
	410 315 5506	IC HD74HCT244TV
IC9822	409 327 6700	IC TC7W02FU-TE12L
CAPACITOR		
C1101	403 164 0204	CERAMIC 0.1U Z 25V
C1102	403 164 0204	CERAMIC 0.1U Z 25V
C1103	403 164 0204	CERAMIC 0.1U Z 25V
C1105	403 321 2607	ELECT 10U M 16V
C1106	403 164 0204	CERAMIC 0.1U Z 25V
C1107	403 164 0204	CERAMIC 0.1U Z 25V
C1108	403 164 0204	CERAMIC 0.1U Z 25V
C1109	403 164 0204	CERAMIC 0.1U Z 25V
C1111	403 304 1801	ELECT 100U M 6.3V
C1112	403 164 0204	CERAMIC 0.1U Z 25V
C1113	403 164 0204	CERAMIC 0.1U Z 25V
C1114	403 164 0204	CERAMIC 0.1U Z 25V
C1115	403 304 1801	ELECT 100U M 6.3V
C1116	403 145 9905	CERAMIC 22P J 50V
C1117	403 145 9905	CERAMIC 22P J 50V
C1118	403 164 0204	CERAMIC 0.1U Z 25V
C1119	403 164 0204	CERAMIC 0.1U Z 25V
C1121	403 164 0204	CERAMIC 0.1U Z 25V
C1122	403 215 0900	CERAMIC 390P J 50V
C1123	403 164 0204	CERAMIC 0.1U Z 25V
C1124	403 304 2105	ELECT 47U M 6.3V
C1125	403 164 0204	CERAMIC 0.1U Z 25V
C1127	403 283 6309	CERAMIC 1U Z 10V
C1128	403 164 0204	CERAMIC 0.1U Z 25V
C1131	403 283 6309	CERAMIC 1U Z 10V
C1132	403 304 1801	ELECT 100U M 6.3V
C1133	403 283 6309	CERAMIC 1U Z 10V
C1134	403 283 6309	CERAMIC 1U Z 10V
C1141	403 164 0204	CERAMIC 0.1U Z 25V
C1142	403 149 9208	CERAMIC 0.01U Z 50V
C1143	403 304 3300	ELECT 47U M 16V
C1144	403 164 0204	CERAMIC 0.1U Z 25V
C1145	403 321 2607	ELECT 10U M 16V
C1146	403 283 6309	CERAMIC 1U Z 10V
C1148	403 164 0204	CERAMIC 0.1U Z 25V
C1161	403 304 1801	ELECT 100U M 6.3V
C1162	403 164 0204	CERAMIC 0.1U Z 25V
C1163	403 145 9905	CERAMIC 22P J 50V
C1165	403 145 9905	CERAMIC 22P J 50V
C1166	403 175 4802	NP-ELECT 10U M 10V
C141	403 162 6208	ELECT 1U M 50V
C142	403 175 4802	NP-ELECT 10U M 10V
C143	403 164 0204	CERAMIC 0.1U Z 25V
C144	403 321 2607	ELECT 10U M 16V
C145	403 283 6309	CERAMIC 1U Z 10V
C146	403 164 0204	CERAMIC 0.1U Z 25V
C147	403 304 3300	ELECT 47U M 16V
C148	403 283 6309	CERAMIC 1U Z 10V
C149	403 266 8108	NP-ELECT 1U M 50V
C1501	403 304 1801	ELECT 100U M 6.3V
C1502	403 164 0204	CERAMIC 0.1U Z 25V
C1503	403 164 0204	CERAMIC 0.1U Z 25V
C1504	403 164 0204	CERAMIC 0.1U Z 25V
C1507	403 164 0204	CERAMIC 0.1U Z 25V
C1508	403 164 0204	CERAMIC 0.1U Z 25V
C1509	403 164 0204	CERAMIC 0.1U Z 25V
C151	403 283 6309	CERAMIC 1U Z 10V
C1511	403 304 3300	ELECT 47U M 16V
C1512	403 164 0204	CERAMIC 0.1U Z 25V
C1513	403 149 9208	CERAMIC 0.01U Z 50V
C1514	403 164 0204	CERAMIC 0.1U Z 25V
C1531	403 304 1801	ELECT 100U M 6.3V
C1532	403 164 0204	CERAMIC 0.1U Z 25V
C1533	403 164 0204	CERAMIC 0.1U Z 25V
C1534	403 164 0204	CERAMIC 0.1U Z 25V
C1537	403 164 0204	CERAMIC 0.1U Z 25V
C1538	403 164 0204	CERAMIC 0.1U Z 25V
C1539	403 164 0204	CERAMIC 0.1U Z 25V
C1541	403 304 3300	ELECT 47U M 16V
C1542	403 164 0204	CERAMIC 0.1U Z 25V
C1543	403 149 9208	CERAMIC 0.01U Z 50V

Electrical Parts List

Key No.	Part No.	Description
C1544	403 164 0204	CERAMIC 0.1U Z 25V
C1561	403 304 1801	ELECT 100U M 6.3V
C1562	403 164 0204	CERAMIC 0.1U Z 25V
C1563	403 164 0204	CERAMIC 0.1U Z 25V
C1564	403 164 0204	CERAMIC 0.1U Z 25V
C1567	403 164 0204	CERAMIC 0.1U Z 25V
C1568	403 164 0204	CERAMIC 0.1U Z 25V
C1569	403 164 0204	CERAMIC 0.1U Z 25V
C1571	403 304 3300	ELECT 47U M 16V
C1572	403 164 0204	CERAMIC 0.1U Z 25V
C1573	403 149 9208	CERAMIC 0.01U Z 50V
C1574	403 164 0204	CERAMIC 0.1U Z 25V
C165	403 113 3805	CERAMIC 1000P K 50V
C1801	403 164 0204	CERAMIC 0.1U Z 25V
C1802	403 164 0204	CERAMIC 0.1U Z 25V
C1803	403 164 0204	CERAMIC 0.1U Z 25V
C1804	403 304 1801	ELECT 100U M 6.3V
C1841	403 164 0204	CERAMIC 0.1U Z 25V
C1842	403 164 0204	CERAMIC 0.1U Z 25V
C1851	403 304 2402	ELECT 100U M 10V
C1852	403 139 7306	CERAMIC 18P J 50V
C1853	403 157 2307	CERAMIC 20P J 50V
C1854	403 164 0204	CERAMIC 0.1U Z 25V
C1855	403 149 9208	CERAMIC 0.01U Z 50V
C1856	403 149 9208	CERAMIC 0.01U Z 50V
C1857	403 281 5007	CERAMIC 0.033U K 25V
C1858	403 162 6604	ELECT 2.2U M 50V
C1861	403 164 0204	CERAMIC 0.1U Z 25V
C1871	403 164 0204	CERAMIC 0.1U Z 25V
C1872	403 164 0204	CERAMIC 0.1U Z 25V
C201	403 164 0204	CERAMIC 0.1U Z 25V
C202	403 164 0204	CERAMIC 0.1U Z 25V
C203	403 162 4006	ELECT 22U M 6.3V
C204	403 162 4006	ELECT 22U M 6.3V
C205	403 162 4006	ELECT 22U M 6.3V
C206	403 164 0204	CERAMIC 0.1U Z 25V
C207	403 322 7809	ELECT 220U M 6.3V
	403 349 4706	ELECT 220U M 6.3V
C208	403 149 9208	CERAMIC 0.01U Z 50V
C209	403 164 0204	CERAMIC 0.1U Z 25V
C210	403 322 7809	ELECT 220U M 6.3V
	403 349 4706	ELECT 220U M 6.3V
C2101	403 149 9208	CERAMIC 0.01U Z 50V
C2102	403 149 9208	CERAMIC 0.01U Z 50V
C2103	403 304 1801	ELECT 100U M 6.3V
C2104	403 164 0204	CERAMIC 0.1U Z 25V
C2106	403 149 9208	CERAMIC 0.01U Z 50V
C2107	403 149 9208	CERAMIC 0.01U Z 50V
C2108	403 266 8108	NP-ELECT 1U M 50V
C211	403 164 0204	CERAMIC 0.1U Z 25V
C2111	403 304 2105	ELECT 47U M 6.3V
C2112	403 164 0204	CERAMIC 0.1U Z 25V
C2113	403 304 2105	ELECT 47U M 6.3V
C2114	403 164 0204	CERAMIC 0.1U Z 25V
C2116	403 164 0204	CERAMIC 0.1U Z 25V
C2117	403 304 2105	ELECT 47U M 6.3V
C2118	403 164 0204	CERAMIC 0.1U Z 25V
C2119	403 164 0204	CERAMIC 0.1U Z 25V
C212	403 162 4006	ELECT 22U M 6.3V
C2121	403 305 9905	CERAMIC 680P J 25V
C2122	403 149 9208	CERAMIC 0.01U Z 50V
C2123	403 149 9208	CERAMIC 0.01U Z 50V
C2127	403 164 0204	CERAMIC 0.1U Z 25V
C213	403 157 2505	CERAMIC 27P J 50V
C214	403 304 1801	ELECT 100U M 6.3V
C215	403 283 6309	CERAMIC 1U Z 10V
C216	403 162 4006	ELECT 22U M 6.3V
C217	403 157 2505	CERAMIC 27P J 50V
C218	403 162 4006	ELECT 22U M 6.3V
C219	403 157 2505	CERAMIC 27P J 50V
C220	403 283 6309	CERAMIC 1U Z 10V
C221	403 304 1801	ELECT 100U M 6.3V
C227	403 322 7809	ELECT 220U M 6.3V
	403 349 4706	ELECT 220U M 6.3V
C228	403 283 6309	CERAMIC 1U Z 10V
C230	403 283 6309	CERAMIC 1U Z 10V
C2301	403 163 9802	CERAMIC 0.047U Z 25V
C2302	403 163 9802	CERAMIC 0.047U Z 25V
C2303	403 163 9802	CERAMIC 0.047U Z 25V
C2307	403 164 0204	CERAMIC 0.1U Z 25V
C2308	403 164 0204	CERAMIC 0.1U Z 25V
C2309	403 164 0204	CERAMIC 0.1U Z 25V
C231	403 149 9208	CERAMIC 0.01U Z 50V
C2310	403 164 0204	CERAMIC 0.1U Z 25V
C2311	403 304 2105	ELECT 47U M 6.3V
C2312	403 164 0204	CERAMIC 0.1U Z 25V
C2313	403 304 2105	ELECT 47U M 6.3V
C2314	403 164 0204	CERAMIC 0.1U Z 25V
C2315	403 149 9208	CERAMIC 0.01U Z 50V
C2316	403 164 0204	CERAMIC 0.1U Z 25V
C2317	403 322 7809	ELECT 220U M 6.3V
	403 349 4706	ELECT 220U M 6.3V
C2318	403 164 0204	CERAMIC 0.1U Z 25V
C2319	403 322 7809	ELECT 220U M 6.3V
	403 349 4706	ELECT 220U M 6.3V
C232	403 149 9208	CERAMIC 0.01U Z 50V
C2320	403 164 0204	CERAMIC 0.1U Z 25V
C2321	403 164 0204	CERAMIC 0.1U Z 25V
C2322	403 164 0204	CERAMIC 0.1U Z 25V
C2323	403 164 0204	CERAMIC 0.1U Z 25V
C2324	403 306 5401	CERAMIC 0.039U K 16V
C2325	403 157 7203	CERAMIC 3900P K 50V
C2326	403 164 0204	CERAMIC 0.1U Z 25V
C2327	403 164 0204	CERAMIC 0.1U Z 25V
C233	403 149 9208	CERAMIC 0.01U Z 50V
C2330	403 341 3905	POS-SOLID 100U M 6.3V
C234	403 164 0204	CERAMIC 0.1U Z 25V
C235	403 322 7809	ELECT 220U M 6.3V
	403 349 4706	ELECT 220U M 6.3V
C2351	403 149 9208	CERAMIC 0.01U Z 50V
C236	403 322 7809	ELECT 220U M 6.3V
	403 349 4706	ELECT 220U M 6.3V
C237	403 164 0204	CERAMIC 0.1U Z 25V
C238	401 105 0306	MT-GLAZE 10 JA 1/16W
C2381	403 283 6309	CERAMIC 1U Z 10V
C2382	403 164 0204	CERAMIC 0.1U Z 25V
C2383	403 304 1801	ELECT 100U M 6.3V
C2384	403 113 3805	CERAMIC 1000P K 50V
C239	403 164 0204	CERAMIC 0.1U Z 25V
C240	401 105 0306	MT-GLAZE 10 JA 1/16W
C241	401 105 0306	MT-GLAZE 10 JA 1/16W
C242	403 164 0204	CERAMIC 0.1U Z 25V
C243	403 164 0204	CERAMIC 0.1U Z 25V
C244	403 164 0204	CERAMIC 0.1U Z 25V
C245	403 164 0204	CERAMIC 0.1U Z 25V
C247	403 164 0204	CERAMIC 0.1U Z 25V
C248	403 164 0204	CERAMIC 0.1U Z 25V
C249	403 164 0204	CERAMIC 0.1U Z 25V
C250	403 164 0204	CERAMIC 0.1U Z 25V
C2501	403 162 5300	ELECT 4.7U M 25V
C2502	403 164 0204	CERAMIC 0.1U Z 25V
C2503	403 164 0204	CERAMIC 0.1U Z 25V
C2504	403 164 0204	CERAMIC 0.1U Z 25V
C2506	403 164 0204	CERAMIC 0.1U Z 25V

Electrical Parts List

Key No.	Part No.	Description			Key No.	Part No.	Description		
C2507	403 321 2607	ELECT	10U M	16V	C3121	403 139 7702	CERAMIC	7P D	50V
C2508	403 164 0204	CERAMIC	0.1U Z	25V	C3122	403 164 0204	CERAMIC	0.1U Z	25V
C251	403 351 4206	ELECT	1U M	50V	C3123	403 149 9208	CERAMIC	0.01U Z	50V
C2511	403 162 5300	ELECT	4.7U M	25V	C3124	403 162 6000	ELECT	0.47U M	50V
C2512	403 164 0204	CERAMIC	0.1U Z	25V	C3126	403 164 0204	CERAMIC	0.1U Z	25V
C2513	403 164 0204	CERAMIC	0.1U Z	25V	C3127	403 149 9208	CERAMIC	0.01U Z	50V
C2514	403 164 0204	CERAMIC	0.1U Z	25V	C3128	403 164 0204	CERAMIC	0.1U Z	25V
C2516	403 164 0204	CERAMIC	0.1U Z	25V	C3129	403 164 0204	CERAMIC	0.1U Z	25V
C2517	403 321 2607	ELECT	10U M	16V	C313	403 164 0204	CERAMIC	0.1U Z	25V
C2518	403 164 0204	CERAMIC	0.1U Z	25V	C3131	403 284 4304	CERAMIC	0.022U K	50V
C252	403 164 0204	CERAMIC	0.1U Z	25V	C3132	403 162 6604	ELECT	2.2U M	50V
C2521	403 162 5300	ELECT	4.7U M	25V	C3133	403 113 3805	CERAMIC	1000P K	50V
C2522	403 164 0204	CERAMIC	0.1U Z	25V	C3134	403 157 2901	CERAMIC	47P J	50V
C2523	403 164 0204	CERAMIC	0.1U Z	25V	C3136	403 164 0204	CERAMIC	0.1U Z	25V
C2524	403 164 0204	CERAMIC	0.1U Z	25V	C3137	403 164 0204	CERAMIC	0.1U Z	25V
C2526	403 164 0204	CERAMIC	0.1U Z	25V	C3138	403 341 3905	POS-SOLID	100U M	6.3V
C2527	403 321 2607	ELECT	10U M	16V	C314	403 164 0204	CERAMIC	0.1U Z	25V
C2528	403 164 0204	CERAMIC	0.1U Z	25V	C315	403 164 0204	CERAMIC	0.1U Z	25V
C253	403 322 7809	ELECT	220U M	6.3V	C316	403 164 0204	CERAMIC	0.1U Z	25V
	403 349 4706	ELECT	220U M	6.3V	C317	403 164 0204	CERAMIC	0.1U Z	25V
C254	403 164 0204	CERAMIC	0.1U Z	25V	C318	403 164 0204	CERAMIC	0.1U Z	25V
C255	403 164 0204	CERAMIC	0.1U Z	25V	C319	403 164 0204	CERAMIC	0.1U Z	25V
C256	403 164 0204	CERAMIC	0.1U Z	25V	C321	403 164 0204	CERAMIC	0.1U Z	25V
C257	403 164 0204	CERAMIC	0.1U Z	25V	C3211	403 164 0204	CERAMIC	0.1U Z	25V
C258	403 164 0204	CERAMIC	0.1U Z	25V	C3212	403 164 0204	CERAMIC	0.1U Z	25V
C259	403 164 0204	CERAMIC	0.1U Z	25V	C3213	403 164 0204	CERAMIC	0.1U Z	25V
C2591	403 229 3508	ELECT	100U M	16V	C3214	403 164 0204	CERAMIC	0.1U Z	25V
	403 335 0408	ELECT	100U M	16V	C3215	403 164 0204	CERAMIC	0.1U Z	25V
C2592	403 164 0204	CERAMIC	0.1U Z	25V	C3216	403 164 0204	CERAMIC	0.1U Z	25V
C260	403 164 0204	CERAMIC	0.1U Z	25V	C3217	403 164 0204	CERAMIC	0.1U Z	25V
C261	403 164 0204	CERAMIC	0.1U Z	25V	C3218	403 164 0204	CERAMIC	0.1U Z	25V
C262	403 157 7203	CERAMIC	3900P K	50V	C322	403 164 0204	CERAMIC	0.1U Z	25V
C263	403 306 5401	CERAMIC	0.039U K	16V	C3227	403 164 0204	CERAMIC	0.1U Z	25V
C265	403 164 0204	CERAMIC	0.1U Z	25V	C3228	403 164 0204	CERAMIC	0.1U Z	25V
C266	403 321 2607	ELECT	10U M	16V	C3229	403 149 9208	CERAMIC	0.01U Z	50V
C267	403 322 7809	ELECT	220U M	6.3V	C323	403 164 0204	CERAMIC	0.1U Z	25V
	403 349 4706	ELECT	220U M	6.3V	C3231	403 164 0204	CERAMIC	0.1U Z	25V
C268	403 164 0204	CERAMIC	0.1U Z	25V	C3232	403 304 2105	ELECT	47U M	6.3V
C269	403 164 0204	CERAMIC	0.1U Z	25V	C324	403 164 0204	CERAMIC	0.1U Z	25V
C270	403 347 5507	POS-SOLID	470U M	4V	C326	403 149 9208	CERAMIC	0.01U Z	50V
C301	403 164 0204	CERAMIC	0.1U Z	25V	C329	403 164 0204	CERAMIC	0.1U Z	25V
C302	403 304 1801	ELECT	100U M	6.3V	C341	403 304 2105	ELECT	47U M	6.3V
C303	403 304 1801	ELECT	100U M	6.3V	C342	403 164 0204	CERAMIC	0.1U Z	25V
C304	403 164 0204	CERAMIC	0.1U Z	25V	C343	403 164 0204	CERAMIC	0.1U Z	25V
C305	403 304 1801	ELECT	100U M	6.3V	C3501	403 164 0204	CERAMIC	0.1U Z	25V
C306	403 304 1801	ELECT	100U M	6.3V	C3502	403 164 0204	CERAMIC	0.1U Z	25V
C307	403 164 0204	CERAMIC	0.1U Z	25V	C3503	403 304 2105	ELECT	47U M	6.3V
C308	403 164 0204	CERAMIC	0.1U Z	25V	C3504	403 164 0204	CERAMIC	0.1U Z	25V
C309	403 164 0204	CERAMIC	0.1U Z	25V	C3506	403 304 3300	ELECT	47U M	16V
C3101	403 164 0204	CERAMIC	0.1U Z	25V	C3507	403 164 0204	CERAMIC	0.1U Z	25V
C3102	403 164 0204	CERAMIC	0.1U Z	25V	C3508	403 229 3508	ELECT	100U M	16V
C3103	403 164 0204	CERAMIC	0.1U Z	25V		403 335 0408	ELECT	100U M	16V
C3104	403 149 9208	CERAMIC	0.01U Z	50V	C351	403 304 2105	ELECT	47U M	6.3V
C3106	403 304 2105	ELECT	47U M	6.3V	C352	403 164 0204	CERAMIC	0.1U Z	25V
C3107	403 343 8809	CERAMIC	0.47U Z	16V	C3551	403 164 0204	CERAMIC	0.1U Z	25V
C3108	403 304 2105	ELECT	47U M	6.3V	C3552	403 304 2105	ELECT	47U M	6.3V
C3109	403 343 8809	CERAMIC	0.47U Z	16V	C3553	403 164 0204	CERAMIC	0.1U Z	25V
C311	403 164 0204	CERAMIC	0.1U Z	25V	C3554	403 164 0204	CERAMIC	0.1U Z	25V
C3111	403 164 0204	CERAMIC	0.1U Z	25V	C3571	403 304 3300	ELECT	47U M	16V
C3112	403 164 0204	CERAMIC	0.1U Z	25V	C3572	403 304 1801	ELECT	100U M	6.3V
C3113	403 164 0204	CERAMIC	0.1U Z	25V	C3573	403 164 0204	CERAMIC	0.1U Z	25V
C3114	403 162 5300	ELECT	4.7U M	25V	C3574	403 283 6309	CERAMIC	1U Z	10V
C3116	403 304 2105	ELECT	47U M	6.3V	C3601	403 162 4709	ELECT	10U M	16V
C3117	403 164 0204	CERAMIC	0.1U Z	25V		403 335 0309	ELECT	10U M	16V
C3118	403 164 0204	CERAMIC	0.1U Z	25V	C361	403 164 0204	CERAMIC	0.1U Z	25V
C3119	403 304 2105	ELECT	47U M	6.3V	C3611	403 164 0204	CERAMIC	0.1U Z	25V
C312	403 164 0204	CERAMIC	0.1U Z	25V	C3612	403 304 3300	ELECT	47U M	16V

Electrical Parts List

Key No.	Part No.	Description		Key No.	Part No.	Description	
C3613	403 164 0204	CERAMIC	0.1U Z 25V	C4133	403 164 0204	CERAMIC	0.1U Z 25V
C3614	403 164 0204	CERAMIC	0.1U Z 25V	C4134	403 164 0204	CERAMIC	0.1U Z 25V
C362	403 164 0204	CERAMIC	0.1U Z 25V	C4135	403 164 0204	CERAMIC	0.1U Z 25V
C3631	403 164 0204	CERAMIC	0.1U Z 25V	C4136	403 283 6309	CERAMIC	1U Z 10V
C3632	403 304 3300	ELECT	47U M 16V	C4137	403 322 1708	ELECT	22U M 16V
C3633	403 164 0204	CERAMIC	0.1U Z 25V	C4138	403 175 4802	NP-ELECT	10U M 10V
C3634	403 164 0204	CERAMIC	0.1U Z 25V	C414	403 164 0204	CERAMIC	0.1U Z 25V
C3636	403 164 0204	CERAMIC	0.1U Z 25V	C4141	403 149 9208	CERAMIC	0.01U Z 50V
C3637	403 164 0204	CERAMIC	0.1U Z 25V	C4142	403 149 9208	CERAMIC	0.01U Z 50V
C3651	403 164 0204	CERAMIC	0.1U Z 25V	C4143	403 149 9208	CERAMIC	0.01U Z 50V
C3652	403 164 0204	CERAMIC	0.1U Z 25V	C4144	403 149 9208	CERAMIC	0.01U Z 50V
C3653	403 304 3300	ELECT	47U M 16V	C4145	403 149 9208	CERAMIC	0.01U Z 50V
C3654	403 164 0204	CERAMIC	0.1U Z 25V	C4146	403 149 9208	CERAMIC	0.01U Z 50V
C3656	403 164 0204	CERAMIC	0.1U Z 25V	C4147	403 149 9208	CERAMIC	0.01U Z 50V
C3657	403 164 0204	CERAMIC	0.1U Z 25V	C4148	403 149 9208	CERAMIC	0.01U Z 50V
C3671	403 229 3508	ELECT	100U M 16V	C4149	403 149 9208	CERAMIC	0.01U Z 50V
	403 335 0408	ELECT	100U M 16V	C415	403 164 0204	CERAMIC	0.1U Z 25V
C3672	403 164 0204	CERAMIC	0.1U Z 25V	C4151	403 155 2309	CERAMIC	4700P K 50V
C3673	403 157 3601	CERAMIC	100P J 50V	C4158	403 331 8101	ELECT	1000U M 10V
C3681	403 229 3508	ELECT	100U M 16V	C416	403 164 0204	CERAMIC	0.1U Z 25V
	403 335 0408	ELECT	100U M 16V	C4161	403 331 8101	ELECT	1000U M 10V
C3682	403 164 0204	CERAMIC	0.1U Z 25V	C4162	403 164 0204	CERAMIC	0.1U Z 25V
C3683	403 157 3601	CERAMIC	100P J 50V	C4163	403 322 1708	ELECT	22U M 16V
C3684	403 149 9208	CERAMIC	0.01U Z 50V	C4164	403 164 0204	CERAMIC	0.1U Z 25V
C391	403 164 0204	CERAMIC	0.1U Z 25V	C4166	403 283 6309	CERAMIC	1U Z 10V
C392	403 304 1801	ELECT	100U M 6.3V	C4167	403 149 9208	CERAMIC	0.01U Z 50V
C393	403 164 0204	CERAMIC	0.1U Z 25V	C4168	403 283 6309	CERAMIC	1U Z 10V
C394	403 304 1801	ELECT	100U M 6.3V	C4169	403 164 0204	CERAMIC	0.1U Z 25V
C395	403 164 0204	CERAMIC	0.1U Z 25V	C417	403 164 0204	CERAMIC	0.1U Z 25V
C396	403 347 5507	POS-SOLID	470U M 4V	C418	403 164 0204	CERAMIC	0.1U Z 25V
C401	403 304 1801	ELECT	100U M 6.3V	C4183	403 321 2607	ELECT	10U M 16V
C402	403 164 0204	CERAMIC	0.1U Z 25V	C4184	403 321 2607	ELECT	10U M 16V
C403	403 304 1801	ELECT	100U M 6.3V	C4185	403 163 9802	CERAMIC	0.047U Z 25V
C404	403 164 0204	CERAMIC	0.1U Z 25V	C4186	403 163 9802	CERAMIC	0.047U Z 25V
C405	403 164 0204	CERAMIC	0.1U Z 25V	C4187	403 321 2607	ELECT	10U M 16V
C406	403 164 0204	CERAMIC	0.1U Z 25V	C4188	403 164 0204	CERAMIC	0.1U Z 25V
C407	403 164 0204	CERAMIC	0.1U Z 25V	C4189	403 322 1708	ELECT	22U M 16V
C408	403 164 0204	CERAMIC	0.1U Z 25V	C419	403 164 0204	CERAMIC	0.1U Z 25V
C409	403 164 0204	CERAMIC	0.1U Z 25V	C4191	403 149 9208	CERAMIC	0.01U Z 50V
C4108	403 280 1604	ELECT	220U M 16V	C4192	403 149 9208	CERAMIC	0.01U Z 50V
C4109	403 164 0204	CERAMIC	0.1U Z 25V	C4193	403 149 9208	CERAMIC	0.01U Z 50V
C411	403 164 0204	CERAMIC	0.1U Z 25V	C4194	403 304 3300	ELECT	47U M 16V
C4110	403 164 0204	CERAMIC	0.1U Z 25V	C4195	403 149 9208	CERAMIC	0.01U Z 50V
C4111	403 164 0204	CERAMIC	0.1U Z 25V	C4196	403 149 9208	CERAMIC	0.01U Z 50V
C4112	403 321 2607	ELECT	10U M 16V	C4197	403 149 9208	CERAMIC	0.01U Z 50V
C4113	403 162 6000	ELECT	0.47U M 50V	C4201	403 164 0204	CERAMIC	0.1U Z 25V
C4114	403 149 9208	CERAMIC	0.01U Z 50V	C4202	403 164 0204	CERAMIC	0.1U Z 25V
C4115	403 321 2607	ELECT	10U M 16V	C4203	403 275 3002	CERAMIC	0.047U K 16V
C4116	403 164 0204	CERAMIC	0.1U Z 25V	C4204	403 164 0204	CERAMIC	0.1U Z 25V
C4117	403 164 0204	CERAMIC	0.1U Z 25V	C4205	403 304 2105	ELECT	47U M 6.3V
C4118	403 149 9208	CERAMIC	0.01U Z 50V	C4206	403 164 0204	CERAMIC	0.1U Z 25V
C4119	403 149 9208	CERAMIC	0.01U Z 50V	C4207	403 164 0204	CERAMIC	0.1U Z 25V
C412	403 164 0204	CERAMIC	0.1U Z 25V	C4208	403 164 0204	CERAMIC	0.1U Z 25V
C4120	403 149 9208	CERAMIC	0.01U Z 50V	C421	403 164 0204	CERAMIC	0.1U Z 25V
C4121	403 304 3300	ELECT	47U M 16V	C4213	403 164 0204	CERAMIC	0.1U Z 25V
C4122	403 149 9208	CERAMIC	0.01U Z 50V	C4217	403 164 0204	CERAMIC	0.1U Z 25V
C4123	403 149 9208	CERAMIC	0.01U Z 50V	C4222	403 164 0204	CERAMIC	0.1U Z 25V
C4124	403 149 9208	CERAMIC	0.01U Z 50V	C4223	403 164 0204	CERAMIC	0.1U Z 25V
C4125	403 321 2607	ELECT	10U M 16V	C4224	403 164 0204	CERAMIC	0.1U Z 25V
C4126	403 162 6000	ELECT	0.47U M 50V	C4225	403 164 0204	CERAMIC	0.1U Z 25V
C4127	403 149 9208	CERAMIC	0.01U Z 50V	C4226	403 164 0204	CERAMIC	0.1U Z 25V
C4128	403 149 9208	CERAMIC	0.01U Z 50V	C4227	403 164 0204	CERAMIC	0.1U Z 25V
C4129	403 149 9208	CERAMIC	0.01U Z 50V	C4228	403 164 0204	CERAMIC	0.1U Z 25V
C413	403 164 0204	CERAMIC	0.1U Z 25V	C4229	403 164 0204	CERAMIC	0.1U Z 25V
C4130	403 164 0204	CERAMIC	0.1U Z 25V	C4231	403 304 1801	ELECT	100U M 6.3V
C4131	403 164 0204	CERAMIC	0.1U Z 25V	C4232	403 164 0204	CERAMIC	0.1U Z 25V
C4132	403 164 0204	CERAMIC	0.1U Z 25V	C4233	403 164 0204	CERAMIC	0.1U Z 25V

Electrical Parts List

Key No.	Part No.	Description		Key No.	Part No.	Description	
C4234	403 321 2607	ELECT	10U M 16V	C514	403 164 0204	CERAMIC	0.1U Z 25V
C4235	403 164 0204	CERAMIC	0.1U Z 25V	C526	403 164 0204	CERAMIC	0.1U Z 25V
C4236	403 155 1609	CERAMIC	33P J 50V	C527	403 164 0204	CERAMIC	0.1U Z 25V
C4237	403 157 7302	CERAMIC	6800P K 50V	C531	403 304 1801	ELECT	100U M 6.3V
C4238	403 164 0204	CERAMIC	0.1U Z 25V	C532	403 164 0204	CERAMIC	0.1U Z 25V
C4239	403 304 1801	ELECT	100U M 6.3V	C533	403 164 0204	CERAMIC	0.1U Z 25V
C4240	403 283 6309	CERAMIC	1U Z 10V	C534	403 164 0204	CERAMIC	0.1U Z 25V
C4241	403 149 9208	CERAMIC	0.01U Z 50V	C537	403 164 0204	CERAMIC	0.1U Z 25V
C4242	403 164 0204	CERAMIC	0.1U Z 25V	C538	403 164 0204	CERAMIC	0.1U Z 25V
C4243	403 113 3805	CERAMIC	1000P K 50V	C539	403 164 0204	CERAMIC	0.1U Z 25V
C4244	403 321 2607	ELECT	10U M 16V	C541	403 304 3300	ELECT	47U M 16V
C4245	403 164 0204	CERAMIC	0.1U Z 25V	C542	403 164 0204	CERAMIC	0.1U Z 25V
C4246	403 164 0204	CERAMIC	0.1U Z 25V	C543	403 149 9208	CERAMIC	0.01U Z 50V
C4247	403 164 0204	CERAMIC	0.1U Z 25V	C544	403 164 0204	CERAMIC	0.1U Z 25V
C4248	403 164 0204	CERAMIC	0.1U Z 25V	C546	403 164 0204	CERAMIC	0.1U Z 25V
C4249	403 164 0204	CERAMIC	0.1U Z 25V	C547	403 164 0204	CERAMIC	0.1U Z 25V
C4251	403 347 5507	POS-SOLID	470U M 4V	C561	403 304 1801	ELECT	100U M 6.3V
C4252	403 164 0204	CERAMIC	0.1U Z 25V	C562	403 164 0204	CERAMIC	0.1U Z 25V
C4253	403 164 0204	CERAMIC	0.1U Z 25V	C563	403 164 0204	CERAMIC	0.1U Z 25V
C4254	403 164 0204	CERAMIC	0.1U Z 25V	C564	403 164 0204	CERAMIC	0.1U Z 25V
C4256	403 164 0204	CERAMIC	0.1U Z 25V	C567	403 164 0204	CERAMIC	0.1U Z 25V
C4271	403 164 0204	CERAMIC	0.1U Z 25V	C568	403 164 0204	CERAMIC	0.1U Z 25V
C4272	403 164 0204	CERAMIC	0.1U Z 25V	C569	403 164 0204	CERAMIC	0.1U Z 25V
C4273	403 164 0204	CERAMIC	0.1U Z 25V	C571	403 304 3300	ELECT	47U M 16V
C4274	403 164 0204	CERAMIC	0.1U Z 25V	C572	403 164 0204	CERAMIC	0.1U Z 25V
C4275	403 162 4709	ELECT	10U M 16V	C573	403 149 9208	CERAMIC	0.01U Z 50V
C4276	403 164 0204	CERAMIC	0.1U Z 25V	C574	403 164 0204	CERAMIC	0.1U Z 25V
C4501	403 304 2105	ELECT	47U M 6.3V	C576	403 164 0204	CERAMIC	0.1U Z 25V
C4502	403 164 0204	CERAMIC	0.1U Z 25V	C577	403 164 0204	CERAMIC	0.1U Z 25V
C4503	403 164 0204	CERAMIC	0.1U Z 25V	C6301	403 304 1801	ELECT	100U M 6.3V
C4504	403 164 0204	CERAMIC	0.1U Z 25V	C6302	403 164 0204	CERAMIC	0.1U Z 25V
C4505	403 164 0204	CERAMIC	0.1U Z 25V	C6303	403 113 3805	CERAMIC	1000P K 50V
C4506	403 164 0204	CERAMIC	0.1U Z 25V	C6304	403 113 3805	CERAMIC	1000P K 50V
C4507	403 164 0204	CERAMIC	0.1U Z 25V	C6305	403 164 0204	CERAMIC	0.1U Z 25V
C451	403 304 1801	ELECT	100U M 6.3V	C6306	403 164 0204	CERAMIC	0.1U Z 25V
C452	403 164 0204	CERAMIC	0.1U Z 25V	C6307	403 164 0204	CERAMIC	0.1U Z 25V
C453	403 304 1801	ELECT	100U M 6.3V	C6308	403 113 3805	CERAMIC	1000P K 50V
C454	403 164 0204	CERAMIC	0.1U Z 25V	C6309	403 164 0204	CERAMIC	0.1U Z 25V
C4551	403 164 0204	CERAMIC	0.1U Z 25V	C6311	403 113 3805	CERAMIC	1000P K 50V
C4552	403 164 0204	CERAMIC	0.1U Z 25V	C6312	403 164 0204	CERAMIC	0.1U Z 25V
C4553	403 164 0204	CERAMIC	0.1U Z 25V	C6313	403 164 0204	CERAMIC	0.1U Z 25V
C4554	403 164 0204	CERAMIC	0.1U Z 25V	C8001	403 304 1801	ELECT	100U M 6.3V
C4555	403 164 0204	CERAMIC	0.1U Z 25V	C8002	403 283 6309	CERAMIC	1U Z 10V
C4556	403 164 0204	CERAMIC	0.1U Z 25V	C8003	403 304 1801	ELECT	100U M 6.3V
C4558	403 164 0204	CERAMIC	0.1U Z 25V	C8004	403 283 6309	CERAMIC	1U Z 10V
C4559	403 164 0204	CERAMIC	0.1U Z 25V	C8005	403 169 2807	CERAMIC	330P J 50V
C4561	403 149 9208	CERAMIC	0.01U Z 50V	C8006	403 283 6309	CERAMIC	1U Z 10V
C4801	403 164 0204	CERAMIC	0.1U Z 25V	C8007	403 304 1801	ELECT	100U M 6.3V
C4802	403 164 0204	CERAMIC	0.1U Z 25V	C8008	403 157 3601	CERAMIC	100P J 50V
C4803	403 164 0204	CERAMIC	0.1U Z 25V	C8009	403 157 3601	CERAMIC	100P J 50V
C4804	403 164 0204	CERAMIC	0.1U Z 25V	C801	403 164 0204	CERAMIC	0.1U Z 25V
C4808	403 304 1801	ELECT	100U M 6.3V	C8010	403 157 3601	CERAMIC	100P J 50V
C4811	403 283 6309	CERAMIC	1U Z 10V	C8011	403 157 3601	CERAMIC	100P J 50V
	403 336 5600	CERAMIC	1U Z 10V	C8012	403 157 3601	CERAMIC	100P J 50V
C4813	403 304 1801	ELECT	100U M 6.3V	C8013	403 164 0204	CERAMIC	0.1U Z 25V
C4814	403 164 0204	CERAMIC	0.1U Z 25V	C8014	403 304 1801	ELECT	100U M 6.3V
C4817	403 304 1801	ELECT	100U M 6.3V	C8015	403 283 6309	CERAMIC	1U Z 10V
C501	403 304 1801	ELECT	100U M 6.3V	C8016	403 155 1500	CERAMIC	180P J 50V
C502	403 164 0204	CERAMIC	0.1U Z 25V	C8017	403 169 2807	CERAMIC	330P J 50V
C503	403 164 0204	CERAMIC	0.1U Z 25V	C8018	403 169 2807	CERAMIC	330P J 50V
C504	403 164 0204	CERAMIC	0.1U Z 25V	C8019	403 155 1500	CERAMIC	180P J 50V
C507	403 164 0204	CERAMIC	0.1U Z 25V	C802	403 164 0204	CERAMIC	0.1U Z 25V
C508	403 164 0204	CERAMIC	0.1U Z 25V	C8020	403 169 2807	CERAMIC	330P J 50V
C509	403 164 0204	CERAMIC	0.1U Z 25V	C8021	403 169 2807	CERAMIC	330P J 50V
C511	403 304 3300	ELECT	47U M 16V	C8022	403 155 1500	CERAMIC	180P J 50V
C512	403 164 0204	CERAMIC	0.1U Z 25V	C803	403 155 1609	CERAMIC	33P J 50V
C513	403 149 9208	CERAMIC	0.01U Z 50V	C8031	403 304 2105	ELECT	47U M 6.3V

Key No.	Part No.	Description
C8032	403 164 0204	CERAMIC 0.1U Z 25V
C8033	403 164 0204	CERAMIC 0.1U Z 25V
C804	403 155 1609	CERAMIC 33P J 50V
C806	403 304 2105	ELECT 47U M 6.3V
C807	403 164 0204	CERAMIC 0.1U Z 25V
C808	403 215 1006	CERAMIC 470P J 50V
C809	403 283 6309	CERAMIC 1U Z 10V
C811	403 164 0204	CERAMIC 0.1U Z 25V
C812	403 164 0204	CERAMIC 0.1U Z 25V
C813	403 164 0204	CERAMIC 0.1U Z 25V
C814	403 304 1801	ELECT 100U M 6.3V
C815	403 164 0204	CERAMIC 0.1U Z 25V
C816	403 164 0204	CERAMIC 0.1U Z 25V
C817	403 164 0204	CERAMIC 0.1U Z 25V
C818	403 304 1801	ELECT 100U M 6.3V
C819	403 164 0204	CERAMIC 0.1U Z 25V
C820	403 164 0204	CERAMIC 0.1U Z 25V
C821	403 164 0204	CERAMIC 0.1U Z 25V
C822	403 164 0204	CERAMIC 0.1U Z 25V
C823	403 164 0204	CERAMIC 0.1U Z 25V
C824	403 164 0204	CERAMIC 0.1U Z 25V
C831	403 164 0204	CERAMIC 0.1U Z 25V
C832	403 283 6309	CERAMIC 1U Z 10V
	403 336 5600	CERAMIC 1U Z 10V
C834	403 164 0204	CERAMIC 0.1U Z 25V
C9401	403 164 0204	CERAMIC 0.1U Z 25V
C9402	403 164 0204	CERAMIC 0.1U Z 25V
C9403	403 164 0204	CERAMIC 0.1U Z 25V
C9404	403 164 0204	CERAMIC 0.1U Z 25V
C9405	403 164 0204	CERAMIC 0.1U Z 25V
C9406	403 164 0204	CERAMIC 0.1U Z 25V
C9407	403 164 0204	CERAMIC 0.1U Z 25V
C9408	403 164 0204	CERAMIC 0.1U Z 25V
C9409	403 164 0204	CERAMIC 0.1U Z 25V
C9411	403 164 0204	CERAMIC 0.1U Z 25V
C9412	403 164 0204	CERAMIC 0.1U Z 25V
C9413	403 164 0204	CERAMIC 0.1U Z 25V
C9414	403 304 1801	ELECT 100U M 6.3V
C9801	403 304 1801	ELECT 100U M 6.3V
C9802	403 164 0204	CERAMIC 0.1U Z 25V
C9803	403 153 9102	CERAMIC 5P C 50V
C9804	403 113 3805	CERAMIC 1000P K 50V
C9805	403 298 9609	CERAMIC 0.1U K 16V
C9806	403 164 0204	CERAMIC 0.1U Z 25V
C9807	403 304 1801	ELECT 100U M 6.3V
C9808	403 164 0204	CERAMIC 0.1U Z 25V
C9809	403 164 0204	CERAMIC 0.1U Z 25V
C9821	403 164 0204	CERAMIC 0.1U Z 25V
C9822	403 164 0204	CERAMIC 0.1U Z 25V
RESISTOR		
RB1841	645 026 8038	R-NETWORK 22KX4 1/16W
RB2301	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB2302	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB2303	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB2304	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB2305	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB2306	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB401	645 037 0663	R-NETWORK 22X4 0.063W
	645 021 4943	R-NETWORK 22X4 1/16W
RB402	645 037 0663	R-NETWORK 22X4 0.063W
	645 021 4943	R-NETWORK 22X4 1/16W
RB403	645 037 0663	R-NETWORK 22X4 0.063W
	645 021 4943	R-NETWORK 22X4 1/16W
RB404	645 037 0663	R-NETWORK 22X4 0.063W
	645 021 4943	R-NETWORK 22X4 1/16W
RB406	645 037 0663	R-NETWORK 22X4 0.063W
	645 021 4943	R-NETWORK 22X4 1/16W
RB407	645 037 0663	R-NETWORK 22X4 0.063W
	645 021 4943	R-NETWORK 22X4 1/16W
RB408	645 037 0663	R-NETWORK 22X4 0.063W
	645 021 4943	R-NETWORK 22X4 1/16W
RB409	645 037 0663	R-NETWORK 22X4 0.063W
	645 021 4943	R-NETWORK 22X4 1/16W
RB411	645 037 0663	R-NETWORK 22X4 0.063W
	645 021 4943	R-NETWORK 22X4 1/16W
RB412	645 037 0663	R-NETWORK 22X4 0.063W
	645 021 4943	R-NETWORK 22X4 1/16W
RB413	645 037 0663	R-NETWORK 22X4 0.063W
	645 021 4943	R-NETWORK 22X4 1/16W
RB414	645 037 0663	R-NETWORK 22X4 0.063W
	645 021 4943	R-NETWORK 22X4 1/16W
RB4201	645 037 0656	R-NETWORK 0X4 0.063W
	645 024 7477	R-NETWORK 0X4 1/16W
RB4202	645 037 0656	R-NETWORK 0X4 0.063W
	645 024 7477	R-NETWORK 0X4 1/16W
RB4801	645 021 0358	R-NETWORK 100X4 0.063W
	645 031 3325	R-NETWORK 100X4 1/16W
RB501	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB502	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB503	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB531	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB532	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB533	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB561	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB562	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB563	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB8001	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB8002	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB8003	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB8004	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB8005	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB8006	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB8007	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB8008	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB8009	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB801	645 037 4920	R-NETWORK 3.3KX4 0.063W
	645 031 4070	R-NETWORK 3.3KX4 1/16W
RB8010	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB8011	645 037 3107	R-NETWORK 10X4 0.063W

Electrical Parts List

Key No.	Part No.	Description
	645 028 5981	R-NETWORK 10X4 1/16W
RB8012	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB8013	645 037 3107	R-NETWORK 10X4 0.063W
	645 028 5981	R-NETWORK 10X4 1/16W
RB802	645 037 4920	R-NETWORK 3.3KX4 0.063W
	645 031 4070	R-NETWORK 3.3KX4 1/16W
RB803	645 037 4920	R-NETWORK 3.3KX4 0.063W
	645 031 4070	R-NETWORK 3.3KX4 1/16W
RB804	645 037 4920	R-NETWORK 3.3KX4 0.063W
	645 031 4070	R-NETWORK 3.3KX4 1/16W
RB9801	645 021 0365	R-NETWORK 100KX4 0.063W
	645 025 5397	R-NETWORK 100KX4 1/16W
RB9802	645 021 0365	R-NETWORK 100KX4 0.063W
	645 025 5397	R-NETWORK 100KX4 1/16W
R1101	401 105 5202	MT-GLAZE 470 JA 1/16W
R1102	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1103	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1104	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1105	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1106	401 105 5202	MT-GLAZE 470 JA 1/16W
R1107	401 105 5202	MT-GLAZE 470 JA 1/16W
R1108	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1109	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R1111	401 105 0405	MT-GLAZE 100 JA 1/16W
R1112	401 105 0405	MT-GLAZE 100 JA 1/16W
R1113	401 105 0405	MT-GLAZE 100 JA 1/16W
R1114	401 105 7305	MT-GLAZE 820 JA 1/16W
R1116	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R1117	401 105 0504	MT-GLAZE 1K JA 1/16W
R1121	401 105 0504	MT-GLAZE 1K JA 1/16W
R1123	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1124	401 105 0504	MT-GLAZE 1K JA 1/16W
R1126	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1127	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R1128	401 105 0603	MT-GLAZE 10K JA 1/16W
R1129	401 105 8104	MT-GLAZE 56K JA 1/16W
R1131	401 105 5400	MT-GLAZE 47K JA 1/16W
R1132	401 105 0504	MT-GLAZE 1K JA 1/16W
R1133	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R1134	401 105 6506	MT-GLAZE 680 JA 1/16W
R1135	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R1136	401 105 2706	MT-GLAZE 220 JA 1/16W
R1137	401 105 6506	MT-GLAZE 680 JA 1/16W
R1139	401 105 5103	MT-GLAZE 47 JA 1/16W
R1141	401 105 0504	MT-GLAZE 1K JA 1/16W
R1142	401 105 8104	MT-GLAZE 56K JA 1/16W
R1143	401 105 5400	MT-GLAZE 47K JA 1/16W
R1144	401 105 0504	MT-GLAZE 1K JA 1/16W
R1145	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R1146	401 105 6506	MT-GLAZE 680 JA 1/16W
R1147	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R1148	401 105 2706	MT-GLAZE 220 JA 1/16W
R1149	401 105 6506	MT-GLAZE 680 JA 1/16W
R1152	401 105 4502	MT-GLAZE 390 JA 1/16W
R1153	401 105 5103	MT-GLAZE 47 JA 1/16W
R1154	401 105 0504	MT-GLAZE 1K JA 1/16W
R1165	401 113 5409	MT-GLAZE 510 JA 1/16W
R1303	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1304	401 105 0603	MT-GLAZE 10K JA 1/16W
R1305	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1307	401 105 0603	MT-GLAZE 10K JA 1/16W
R1308	401 105 0603	MT-GLAZE 10K JA 1/16W
R1309	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1313	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R140	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R141	401 105 2904	MT-GLAZE 22K JA 1/16W
R142	401 105 1600	MT-GLAZE 15K JA 1/16W
R143	401 105 0504	MT-GLAZE 1K JA 1/16W
R144	401 105 0504	MT-GLAZE 1K JA 1/16W
R145	401 105 4809	MT-GLAZE 390K JA 1/16W
R146	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R147	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R148	401 105 0405	MT-GLAZE 100 JA 1/16W
R149	401 105 0504	MT-GLAZE 1K JA 1/16W
R1502	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1504	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R151	401 105 6506	MT-GLAZE 680 JA 1/16W
R152	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R153	401 105 0504	MT-GLAZE 1K JA 1/16W
R1532	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1533	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R154	401 105 0405	MT-GLAZE 100 JA 1/16W
R155	401 105 0504	MT-GLAZE 1K JA 1/16W
R156	401 105 0405	MT-GLAZE 100 JA 1/16W
R1562	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1563	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R157	401 105 0504	MT-GLAZE 1K JA 1/16W
R158	401 105 2706	MT-GLAZE 220 JA 1/16W
R159	401 105 3000	MT-GLAZE 220K JA 1/16W
R161	401 105 5400	MT-GLAZE 47K JA 1/16W
R162	401 105 0504	MT-GLAZE 1K JA 1/16W
R163	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R164	401 105 5202	MT-GLAZE 470 JA 1/16W
R165	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R1803	401 105 0603	MT-GLAZE 10K JA 1/16W
R1804	401 105 0603	MT-GLAZE 10K JA 1/16W
R1805	401 105 0603	MT-GLAZE 10K JA 1/16W
R1806	401 105 0405	MT-GLAZE 100 JA 1/16W
R1807	401 105 0405	MT-GLAZE 100 JA 1/16W
R1810	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1811	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1812	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1813	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1814	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1816	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1817	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1821	401 105 0603	MT-GLAZE 10K JA 1/16W
R1822	401 105 0603	MT-GLAZE 10K JA 1/16W
R1823	401 105 0603	MT-GLAZE 10K JA 1/16W
R1833	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1834	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1836	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1841	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1842	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1843	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1844	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1846	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1847	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1848	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1849	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1851	401 105 6100	MT-GLAZE 560K JA 1/16W
R1852	401 105 0405	MT-GLAZE 100 JA 1/16W
R1854	401 105 0405	MT-GLAZE 100 JA 1/16W
R1855	401 105 0405	MT-GLAZE 100 JA 1/16W
R1856	401 105 0504	MT-GLAZE 1K JA 1/16W
R1857	401 105 8005	MT-GLAZE 1M JA 1/16W
R1858	401 105 0504	MT-GLAZE 1K JA 1/16W
R1859	401 105 0504	MT-GLAZE 1K JA 1/16W
R1860	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1861	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1862	401 105 0603	MT-GLAZE 10K JA 1/16W
R1863	401 105 0603	MT-GLAZE 10K JA 1/16W
R1871	401 105 7909	MT-GLAZE 0.000 ZA 1/16W

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
R1872	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2328	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1876	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2329	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1877	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R233	401 105 3901	MT-GLAZE 33 JA 1/16W
R1881	401 105 0603	MT-GLAZE 10K JA 1/16W	R2333	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1882	401 105 0603	MT-GLAZE 10K JA 1/16W	R2334	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1883	401 105 0603	MT-GLAZE 10K JA 1/16W	R2343	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1884	401 105 0603	MT-GLAZE 10K JA 1/16W	R2344	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R1886	401 105 0603	MT-GLAZE 10K JA 1/16W	R235	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1887	401 105 0603	MT-GLAZE 10K JA 1/16W	R2351	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R1888	401 105 0603	MT-GLAZE 10K JA 1/16W	R2352	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R1891	401 105 5301	MT-GLAZE 4.7K JA 1/16W	R2353	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R1892	401 105 0405	MT-GLAZE 100 JA 1/16W	R2354	401 105 2904	MT-GLAZE 22K JA 1/16W
R1893	401 105 5301	MT-GLAZE 4.7K JA 1/16W	R2355	401 105 0504	MT-GLAZE 1K JA 1/16W
R1894	401 105 0405	MT-GLAZE 100 JA 1/16W	R2356	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R201	401 105 3901	MT-GLAZE 33 JA 1/16W	R2357	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R202	401 105 0900	MT-GLAZE 120 JA 1/16W	R2358	401 105 0504	MT-GLAZE 1K JA 1/16W
R203	401 105 3901	MT-GLAZE 33 JA 1/16W	R2361	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R204	401 105 0900	MT-GLAZE 120 JA 1/16W	R2362	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R205	401 105 3901	MT-GLAZE 33 JA 1/16W	R2363	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R206	401 105 0900	MT-GLAZE 120 JA 1/16W	R244	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R207	401 105 0405	MT-GLAZE 100 JA 1/16W	R245	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R208	401 105 0603	MT-GLAZE 10K JA 1/16W	R246	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R209	401 105 0405	MT-GLAZE 100 JA 1/16W	R247	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R210	401 105 0603	MT-GLAZE 10K JA 1/16W	R248	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R2101	401 105 4601	MT-GLAZE 3.9K JA 1/16W	R2501	401 148 6006	MT-GLAZE 2.2 JA 1/16W
R2102	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2502	401 148 6006	MT-GLAZE 2.2 JA 1/16W
R2103	401 105 0405	MT-GLAZE 100 JA 1/16W	R2503	401 148 6006	MT-GLAZE 2.2 JA 1/16W
R2104	401 105 0405	MT-GLAZE 100 JA 1/16W	R2504	401 148 6006	MT-GLAZE 2.2 JA 1/16W
R2106	401 105 4007	MT-GLAZE 330 JA 1/16W	R2506	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R2107	401 105 0504	MT-GLAZE 1K JA 1/16W	R2507	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R2108	401 105 0504	MT-GLAZE 1K JA 1/16W	R2508	401 105 4700	MT-GLAZE 39K JA 1/16W
R2109	401 105 0504	MT-GLAZE 1K JA 1/16W	R2509	401 105 0504	MT-GLAZE 1K JA 1/16W
R211	401 105 0405	MT-GLAZE 100 JA 1/16W	R251	401 105 0504	MT-GLAZE 1K JA 1/16W
R2111	401 105 0504	MT-GLAZE 1K JA 1/16W	R2511	401 148 6006	MT-GLAZE 2.2 JA 1/16W
R2112	401 105 4601	MT-GLAZE 3.9K JA 1/16W	R2512	401 148 6006	MT-GLAZE 2.2 JA 1/16W
R2113	401 105 6605	MT-GLAZE 6.8K JA 1/16W	R2513	401 148 6006	MT-GLAZE 2.2 JA 1/16W
R212	401 105 0603	MT-GLAZE 10K JA 1/16W	R2514	401 148 6006	MT-GLAZE 2.2 JA 1/16W
R213	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2516	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R214	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2517	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R215	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2518	401 105 4700	MT-GLAZE 39K JA 1/16W
R216	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2519	401 105 0504	MT-GLAZE 1K JA 1/16W
R217	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R252	401 105 0504	MT-GLAZE 1K JA 1/16W
R219	401 105 3901	MT-GLAZE 33 JA 1/16W	R2521	401 148 6006	MT-GLAZE 2.2 JA 1/16W
R221	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2522	401 148 6006	MT-GLAZE 2.2 JA 1/16W
R224	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2523	401 148 6006	MT-GLAZE 2.2 JA 1/16W
R226	401 105 3901	MT-GLAZE 33 JA 1/16W	R2524	401 148 6006	MT-GLAZE 2.2 JA 1/16W
R228	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R2526	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R2301	401 105 0405	MT-GLAZE 100 JA 1/16W	R2527	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R2302	401 105 0504	MT-GLAZE 1K JA 1/16W	R2528	401 105 4700	MT-GLAZE 39K JA 1/16W
R2303	401 105 0405	MT-GLAZE 100 JA 1/16W	R2529	401 105 0504	MT-GLAZE 1K JA 1/16W
R2304	401 105 0504	MT-GLAZE 1K JA 1/16W	R253	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2305	401 105 0405	MT-GLAZE 100 JA 1/16W	R254	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2306	401 105 0504	MT-GLAZE 1K JA 1/16W	R255	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2307	401 105 0504	MT-GLAZE 1K JA 1/16W	R256	401 105 0504	MT-GLAZE 1K JA 1/16W
R2308	401 105 0504	MT-GLAZE 1K JA 1/16W	R257	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2309	401 105 0504	MT-GLAZE 1K JA 1/16W	R258	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R231	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R259	401 105 0603	MT-GLAZE 10K JA 1/16W
R2310	401 105 7305	MT-GLAZE 820 JA 1/16W	R260	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2313	401 105 0603	MT-GLAZE 10K JA 1/16W	R261	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2317	401 105 0405	MT-GLAZE 100 JA 1/16W	R262	401 105 0405	MT-GLAZE 100 JA 1/16W
R2319	401 105 1402	MT-GLAZE 150 JA 1/16W	R263	401 105 0405	MT-GLAZE 100 JA 1/16W
R2321	401 105 1402	MT-GLAZE 150 JA 1/16W	R264	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2322	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R265	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2323	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R266	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2324	401 035 4108	MT-GLAZE 0.000 ZA 1/8W	R267	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2325	401 035 4108	MT-GLAZE 0.000 ZA 1/8W	R268	401 105 0306	MT-GLAZE 10 JA 1/16W
R2327	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R269	401 105 0306	MT-GLAZE 10 JA 1/16W

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
R270	401 105 0306	MT-GLAZE 10 JA 1/16W	R3160	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R271	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3161	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R272	401 105 4106	MT-GLAZE 3.3K JA 1/16W	R317	401 105 0306	MT-GLAZE 10 JA 1/16W
R273	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R318	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R274	401 105 2003	MT-GLAZE 1.8K JA 1/16W	R320	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R275	401 105 2003	MT-GLAZE 1.8K JA 1/16W	R3211	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R276	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3212	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R277	401 105 0405	MT-GLAZE 100 JA 1/16W	R3213	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R278	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3214	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R283	401 105 2706	MT-GLAZE 220 JA 1/16W	R322	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R284	401 105 2706	MT-GLAZE 220 JA 1/16W	R3221	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R285	401 105 2706	MT-GLAZE 220 JA 1/16W	R3222	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R286	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3223	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R287	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3224	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R288	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3226	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R301	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3228	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R304	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3231	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R308	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3232	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3101	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3233	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3102	401 105 6605	MT-GLAZE 6.8K JA 1/16W	R3239	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3104	401 105 0405	MT-GLAZE 100 JA 1/16W	R3241	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3106	401 105 0405	MT-GLAZE 100 JA 1/16W	R3242	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3107	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3243	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3108	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R326	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R311	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R327	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3111	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R328	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3112	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R330	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3113	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R332	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3114	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R333	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3116	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R334	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3117	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R336	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3118	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R337	401 105 0603	MT-GLAZE 10K JA 1/16W
R3119	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R338	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R312	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R341	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3121	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R342	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R3122	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R343	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R3123	401 105 5301	MT-GLAZE 4.7K JA 1/16W	R344	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3124	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R345	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3127	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3501	401 105 0405	MT-GLAZE 100 JA 1/16W
R3128	401 105 2805	MT-GLAZE 2.2K JA 1/16W	R3502	401 105 0405	MT-GLAZE 100 JA 1/16W
R3129	401 177 2406	MT-GLAZE 10M JA 1/16W	R3503	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R313	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3506	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3131	401 105 3406	MT-GLAZE 27K JA 1/16W	R351	401 105 0405	MT-GLAZE 100 JA 1/16W
R3132	401 105 7503	MT-GLAZE 82K JA 1/16W	R352	401 105 0603	MT-GLAZE 10K JA 1/16W
R3133	401 105 1006	MT-GLAZE 1.2K JA 1/16W	R354	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3134	401 105 0504	MT-GLAZE 1K JA 1/16W	R3551	401 105 0405	MT-GLAZE 100 JA 1/16W
R3136	401 105 0504	MT-GLAZE 1K JA 1/16W	R3552	401 105 0405	MT-GLAZE 100 JA 1/16W
R3137	401 105 0405	MT-GLAZE 100 JA 1/16W	R3554	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3139	401 105 0504	MT-GLAZE 1K JA 1/16W	R3555	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R314	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3556	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3141	401 105 5905	MT-GLAZE 560 JA 1/16W	R3557	401 105 0405	MT-GLAZE 100 JA 1/16W
R3142	401 105 1501	MT-GLAZE 1.5K JA 1/16W	R356	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3143	401 105 0504	MT-GLAZE 1K JA 1/16W	R3561	401 105 0504	MT-GLAZE 1K JA 1/16W
R3144	401 105 5905	MT-GLAZE 560 JA 1/16W	R3562	401 105 0504	MT-GLAZE 1K JA 1/16W
R3145	401 105 1501	MT-GLAZE 1.5K JA 1/16W	R3563	401 105 0405	MT-GLAZE 100 JA 1/16W
R3146	401 105 0504	MT-GLAZE 1K JA 1/16W	R3564	401 105 0405	MT-GLAZE 100 JA 1/16W
R3147	401 105 5905	MT-GLAZE 560 JA 1/16W	R357	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3148	401 105 1501	MT-GLAZE 1.5K JA 1/16W	R3571	401 105 0603	MT-GLAZE 10K JA 1/16W
R3149	401 105 0504	MT-GLAZE 1K JA 1/16W	R3572	401 105 0603	MT-GLAZE 10K JA 1/16W
R315	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3573	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R3151	401 105 0405	MT-GLAZE 100 JA 1/16W	R3574	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3152	401 105 0504	MT-GLAZE 1K JA 1/16W	R358	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3153	401 105 0405	MT-GLAZE 100 JA 1/16W	R359	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3154	401 105 0504	MT-GLAZE 1K JA 1/16W	R3601	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R3155	401 105 0405	MT-GLAZE 100 JA 1/16W	R3602	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R3156	401 105 0504	MT-GLAZE 1K JA 1/16W	R3603	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R316	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R3604	401 105 0603	MT-GLAZE 10K JA 1/16W

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
R361	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R384	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3611	401 105 0306	MT-GLAZE 10 JA 1/16W	R387	401 105 0603	MT-GLAZE 10K JA 1/16W
R3612	401 105 0306	MT-GLAZE 10 JA 1/16W	R392	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3613	401 105 0306	MT-GLAZE 10 JA 1/16W	R395	401 230 8000	MT-GLAZE 1K JA 1/3W
R3614	401 105 0306	MT-GLAZE 10 JA 1/16W	R401	401 105 2607	MT-GLAZE 22 JA 1/16W
R3616	401 105 0306	MT-GLAZE 10 JA 1/16W	R402	401 105 2607	MT-GLAZE 22 JA 1/16W
R3617	401 105 0306	MT-GLAZE 10 JA 1/16W	R403	401 105 2607	MT-GLAZE 22 JA 1/16W
R3618	401 105 0306	MT-GLAZE 10 JA 1/16W	R404	401 105 2607	MT-GLAZE 22 JA 1/16W
R3619	401 105 0306	MT-GLAZE 10 JA 1/16W	R406	401 105 2607	MT-GLAZE 22 JA 1/16W
R362	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R407	401 105 2607	MT-GLAZE 22 JA 1/16W
R3621	401 105 0306	MT-GLAZE 10 JA 1/16W	R4101	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3622	401 105 0306	MT-GLAZE 10 JA 1/16W	R4102	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3623	401 105 0306	MT-GLAZE 10 JA 1/16W	R4103	401 105 0405	MT-GLAZE 100 JA 1/16W
R3624	401 105 0306	MT-GLAZE 10 JA 1/16W	R4104	401 105 0405	MT-GLAZE 100 JA 1/16W
R3626	401 105 0306	MT-GLAZE 10 JA 1/16W	R4105	401 105 3000	MT-GLAZE 220K JA 1/16W
R3627	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R4106	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R363	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R4107	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R3631	401 105 0306	MT-GLAZE 10 JA 1/16W	R4108	401 105 5202	MT-GLAZE 470 JA 1/16W
R3632	401 105 0306	MT-GLAZE 10 JA 1/16W	R4109	401 217 5404	MT-GLAZE 47K FA 1/16W
R3633	401 105 0306	MT-GLAZE 10 JA 1/16W	R411	401 105 3901	MT-GLAZE 33 JA 1/16W
R3634	401 105 0306	MT-GLAZE 10 JA 1/16W	R4111	401 105 0405	MT-GLAZE 100 JA 1/16W
R3636	401 105 0306	MT-GLAZE 10 JA 1/16W	R4112	401 105 0405	MT-GLAZE 100 JA 1/16W
R3637	401 105 0306	MT-GLAZE 10 JA 1/16W	R4113	401 105 0603	MT-GLAZE 10K JA 1/16W
R3638	401 105 0306	MT-GLAZE 10 JA 1/16W	R4114	401 105 0603	MT-GLAZE 10K JA 1/16W
R3639	401 105 0306	MT-GLAZE 10 JA 1/16W	R4115	401 105 0603	MT-GLAZE 10K JA 1/16W
R364	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R4117	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3641	401 105 0306	MT-GLAZE 10 JA 1/16W	R4118	401 105 0504	MT-GLAZE 1K JA 1/16W
R3642	401 105 0306	MT-GLAZE 10 JA 1/16W	R4119	401 105 0504	MT-GLAZE 1K JA 1/16W
R3643	401 105 0306	MT-GLAZE 10 JA 1/16W	R412	401 105 3901	MT-GLAZE 33 JA 1/16W
R3644	401 105 0306	MT-GLAZE 10 JA 1/16W	R4120	401 105 0603	MT-GLAZE 10K JA 1/16W
R3646	401 105 0306	MT-GLAZE 10 JA 1/16W	R4121	401 105 0603	MT-GLAZE 10K JA 1/16W
R3647	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R4122	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3648	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R4123	401 105 0603	MT-GLAZE 10K JA 1/16W
R3649	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R4124	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R365	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R4125	401 105 0504	MT-GLAZE 1K JA 1/16W
R3651	401 105 0306	MT-GLAZE 10 JA 1/16W	R4126	401 105 0603	MT-GLAZE 10K JA 1/16W
R3652	401 105 0306	MT-GLAZE 10 JA 1/16W	R4127	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3653	401 105 0306	MT-GLAZE 10 JA 1/16W	R4129	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R3654	401 105 0306	MT-GLAZE 10 JA 1/16W	R413	401 105 3901	MT-GLAZE 33 JA 1/16W
R3656	401 105 0306	MT-GLAZE 10 JA 1/16W	R4131	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R3657	401 105 0306	MT-GLAZE 10 JA 1/16W	R4132	401 105 0603	MT-GLAZE 10K JA 1/16W
R3658	401 105 0306	MT-GLAZE 10 JA 1/16W	R4134	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3659	401 105 0306	MT-GLAZE 10 JA 1/16W	R4135	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R366	401 105 0603	MT-GLAZE 10K JA 1/16W	R4136	401 105 0405	MT-GLAZE 100 JA 1/16W
R3661	401 105 0306	MT-GLAZE 10 JA 1/16W	R4137	401 114 0908	MT-GLAZE 3.3M JA 1/16W
R3662	401 105 0306	MT-GLAZE 10 JA 1/16W	R4138	401 113 5409	MT-GLAZE 510 JA 1/16W
R3663	401 105 0306	MT-GLAZE 10 JA 1/16W	R4139	401 113 5409	MT-GLAZE 510 JA 1/16W
R3664	401 105 0306	MT-GLAZE 10 JA 1/16W	R414	401 105 3901	MT-GLAZE 33 JA 1/16W
R3666	401 105 0306	MT-GLAZE 10 JA 1/16W	R4141	401 105 0405	MT-GLAZE 100 JA 1/16W
R3667	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R4143	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3668	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R4144	401 105 0405	MT-GLAZE 100 JA 1/16W
R3669	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R4145	401 105 0405	MT-GLAZE 100 JA 1/16W
R3672	401 105 2805	MT-GLAZE 2.2K JA 1/16W	R4146	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3673	401 105 0504	MT-GLAZE 1K JA 1/16W	R4147	401 105 0405	MT-GLAZE 100 JA 1/16W
R3676	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R4148	401 105 0405	MT-GLAZE 100 JA 1/16W
R3678	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R4149	401 217 4100	MT-GLAZE 22K FA 1/16W
R368	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R4151	401 105 0504	MT-GLAZE 1K JA 1/16W
R3681	401 105 2805	MT-GLAZE 2.2K JA 1/16W	R4152	401 105 0405	MT-GLAZE 100 JA 1/16W
R3682	401 105 0504	MT-GLAZE 1K JA 1/16W	R4153	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R369	401 105 0603	MT-GLAZE 10K JA 1/16W	R4154	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R370	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R4155	401 105 7305	MT-GLAZE 820 JA 1/16W
R371	401 105 0603	MT-GLAZE 10K JA 1/16W	R4156	401 105 0504	MT-GLAZE 1K JA 1/16W
R373	401 105 0603	MT-GLAZE 10K JA 1/16W	R4157	401 105 2904	MT-GLAZE 22K JA 1/16W
R375	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R4158	401 158 4108	MT-GLAZE 4.7 JA 1/16W
R376	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R4159	401 105 1907	MT-GLAZE 180 JA 1/16W
R379	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R416	401 105 3901	MT-GLAZE 33 JA 1/16W
R382	401 105 7909	MT-GLAZE 0.000 ZA 1/16W	R4161	401 112 8005	MT-GLAZE 5.6 JA 1/16W

Key No.	Part No.	Description
R4162	401 105 0504	MT-GLAZE 1K JA 1/16W
R4163	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R4164	401 105 0504	MT-GLAZE 1K JA 1/16W
R4165	401 105 0504	MT-GLAZE 1K JA 1/16W
R4166	401 105 0504	MT-GLAZE 1K JA 1/16W
R4167	401 105 0504	MT-GLAZE 1K JA 1/16W
R4168	403 145 9905	CERAMIC 22P J 50V
R4169	403 145 9905	CERAMIC 22P J 50V
R417	401 105 2607	MT-GLAZE 22 JA 1/16W
R4171	403 145 9905	CERAMIC 22P J 50V
R4172	401 105 0504	MT-GLAZE 1K JA 1/16W
R4173	401 105 0504	MT-GLAZE 1K JA 1/16W
R4174	401 105 0504	MT-GLAZE 1K JA 1/16W
R4175	401 105 0504	MT-GLAZE 1K JA 1/16W
R4176	401 105 0504	MT-GLAZE 1K JA 1/16W
R4177	401 105 0504	MT-GLAZE 1K JA 1/16W
R418	401 105 2607	MT-GLAZE 22 JA 1/16W
R4181	401 105 8104	MT-GLAZE 56K JA 1/16W
R4182	401 105 8104	MT-GLAZE 56K JA 1/16W
R4183	401 105 0504	MT-GLAZE 1K JA 1/16W
R4184	401 105 0504	MT-GLAZE 1K JA 1/16W
R4185	401 105 0504	MT-GLAZE 1K JA 1/16W
R4188	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R419	401 105 2607	MT-GLAZE 22 JA 1/16W
R4191	401 105 7305	MT-GLAZE 820 JA 1/16W
R4192	401 105 0504	MT-GLAZE 1K JA 1/16W
R4201	401 113 8103	MT-GLAZE 43K JA 1/16W
R4202	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4203	401 105 0504	MT-GLAZE 1K JA 1/16W
R4204	401 105 0504	MT-GLAZE 1K JA 1/16W
R4205	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4206	401 105 0603	MT-GLAZE 10K JA 1/16W
R4207	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4208	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4209	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R421	401 105 2607	MT-GLAZE 22 JA 1/16W
R4210	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4211	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4212	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4213	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4214	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4215	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4216	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4217	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4218	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4219	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R422	401 105 3901	MT-GLAZE 33 JA 1/16W
R4220	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4221	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4222	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4223	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4224	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4225	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4226	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4227	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4228	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4229	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R423	401 105 3901	MT-GLAZE 33 JA 1/16W
R4230	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4231	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4232	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4233	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4234	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4235	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4236	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4237	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4238	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4239	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R424	401 105 3901	MT-GLAZE 33 JA 1/16W
R4240	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4241	401 105 0405	MT-GLAZE 100 JA 1/16W
R4242	401 105 0405	MT-GLAZE 100 JA 1/16W
R4243	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4244	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4245	401 105 0603	MT-GLAZE 10K JA 1/16W
R4247	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R4248	401 105 4007	MT-GLAZE 330 JA 1/16W
R4249	401 105 0702	MT-GLAZE 100K JA 1/16W
R4251	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4252	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4253	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R426	401 105 3901	MT-GLAZE 33 JA 1/16W
R427	401 105 3901	MT-GLAZE 33 JA 1/16W
R4271	401 262 8405	MT-GLAZE 510 FA 1/16W
R4273	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R428	401 105 2607	MT-GLAZE 22 JA 1/16W
R4282	401 190 2209	MT-GLAZE 220 FA 1/16W
R4283	401 229 9100	MT-GLAZE 15 FA 1/16W
R4284	401 105 0603	MT-GLAZE 10K JA 1/16W
R429	401 105 2607	MT-GLAZE 22 JA 1/16W
R431	401 105 3901	MT-GLAZE 33 JA 1/16W
R432	401 105 3901	MT-GLAZE 33 JA 1/16W
R433	401 105 3901	MT-GLAZE 33 JA 1/16W
R434	401 105 3901	MT-GLAZE 33 JA 1/16W
R436	401 105 3901	MT-GLAZE 33 JA 1/16W
R437	401 105 3901	MT-GLAZE 33 JA 1/16W
R438	401 105 3901	MT-GLAZE 33 JA 1/16W
R439	401 105 3901	MT-GLAZE 33 JA 1/16W
R441	401 105 0603	MT-GLAZE 10K JA 1/16W
R442	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R443	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R444	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R446	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R447	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R448	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R449	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4501	401 105 0405	MT-GLAZE 100 JA 1/16W
R4502	401 105 0405	MT-GLAZE 100 JA 1/16W
R4503	401 105 0405	MT-GLAZE 100 JA 1/16W
R4504	401 105 0405	MT-GLAZE 100 JA 1/16W
R4505	401 105 0405	MT-GLAZE 100 JA 1/16W
R4506	401 105 0405	MT-GLAZE 100 JA 1/16W
R4507	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4509	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R451	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4513	401 105 0603	MT-GLAZE 10K JA 1/16W
R4514	401 105 0603	MT-GLAZE 10K JA 1/16W
R4515	401 105 0603	MT-GLAZE 10K JA 1/16W
R4537	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4551	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R4552	401 105 0603	MT-GLAZE 10K JA 1/16W
R4553	401 105 0603	MT-GLAZE 10K JA 1/16W
R4554	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R4555	401 105 0405	MT-GLAZE 100 JA 1/16W
R461	401 105 3901	MT-GLAZE 33 JA 1/16W
R462	401 105 3901	MT-GLAZE 33 JA 1/16W
R463	401 105 3901	MT-GLAZE 33 JA 1/16W
R464	401 105 3901	MT-GLAZE 33 JA 1/16W
R466	401 105 3901	MT-GLAZE 33 JA 1/16W
R467	401 105 3901	MT-GLAZE 33 JA 1/16W
R468	401 105 3901	MT-GLAZE 33 JA 1/16W
R469	401 105 3901	MT-GLAZE 33 JA 1/16W
R471	401 105 3901	MT-GLAZE 33 JA 1/16W
R472	401 105 3901	MT-GLAZE 33 JA 1/16W

Electrical Parts List

Key No.	Part No.	Description
R473	401 105 3901	MT-GLAZE 33 JA 1/16W
R474	401 105 3901	MT-GLAZE 33 JA 1/16W
R476	401 105 3901	MT-GLAZE 33 JA 1/16W
R477	401 105 3901	MT-GLAZE 33 JA 1/16W
R478	401 105 3901	MT-GLAZE 33 JA 1/16W
R479	401 105 3901	MT-GLAZE 33 JA 1/16W
R4801	401 105 0603	MT-GLAZE 10K JA 1/16W
R4802	401 105 0405	MT-GLAZE 100 JA 1/16W
R4803	401 105 0603	MT-GLAZE 10K JA 1/16W
R4804	401 105 0405	MT-GLAZE 100 JA 1/16W
R4805	401 105 0603	MT-GLAZE 10K JA 1/16W
R4806	401 105 0405	MT-GLAZE 100 JA 1/16W
R4807	401 105 0504	MT-GLAZE 1K JA 1/16W
R4808	401 105 0504	MT-GLAZE 1K JA 1/16W
R4809	401 105 5202	MT-GLAZE 470 JA 1/16W
R481	401 105 3901	MT-GLAZE 33 JA 1/16W
R4811	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R4812	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R4814	401 105 0405	MT-GLAZE 100 JA 1/16W
R4815	401 105 2904	MT-GLAZE 22K JA 1/16W
R4816	401 105 5202	MT-GLAZE 470 JA 1/16W
R4817	401 105 0405	MT-GLAZE 100 JA 1/16W
R4818	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R482	401 105 3901	MT-GLAZE 33 JA 1/16W
R4822	401 105 0603	MT-GLAZE 10K JA 1/16W
R4823	401 105 4502	MT-GLAZE 390 JA 1/16W
R4824	401 105 4502	MT-GLAZE 390 JA 1/16W
R4825	401 105 4502	MT-GLAZE 390 JA 1/16W
R4826	401 105 2904	MT-GLAZE 22K JA 1/16W
R4827	401 105 2904	MT-GLAZE 22K JA 1/16W
R4828	401 105 0405	MT-GLAZE 100 JA 1/16W
R4829	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R483	401 105 3901	MT-GLAZE 33 JA 1/16W
R4831	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4834	401 105 0603	MT-GLAZE 10K JA 1/16W
R4835	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4836	401 105 0603	MT-GLAZE 10K JA 1/16W
R4838	401 036 1403	MT-GLAZE 220 JA 1/8W
R484	401 105 3901	MT-GLAZE 33 JA 1/16W
R4844	401 105 0306	MT-GLAZE 10 JA 1/16W
R4845	401 105 0306	MT-GLAZE 10 JA 1/16W
R4847	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R4849	401 105 0405	MT-GLAZE 100 JA 1/16W
R4851	401 105 0405	MT-GLAZE 100 JA 1/16W
R4852	401 105 0405	MT-GLAZE 100 JA 1/16W
R4853	401 105 0405	MT-GLAZE 100 JA 1/16W
R4855	401 105 2904	MT-GLAZE 22K JA 1/16W
R4856	401 105 2904	MT-GLAZE 22K JA 1/16W
R4857	401 105 0405	MT-GLAZE 100 JA 1/16W
R4858	401 105 0405	MT-GLAZE 100 JA 1/16W
R4859	401 105 0603	MT-GLAZE 10K JA 1/16W
R486	401 105 3901	MT-GLAZE 33 JA 1/16W
R4861	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R4862	401 038 9605	MT-GLAZE 750 JA 1/10W
R4864	401 105 6506	MT-GLAZE 680 JA 1/16W
R4866	401 105 0603	MT-GLAZE 10K JA 1/16W
R4867	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R4868	401 105 0603	MT-GLAZE 10K JA 1/16W
R4869	401 105 0603	MT-GLAZE 10K JA 1/16W
R501	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R504	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R511	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R512	401 105 3406	MT-GLAZE 27K JA 1/16W
R513	401 105 0603	MT-GLAZE 10K JA 1/16W
R514	401 113 6802	MT-GLAZE 11K JA 1/16W
R531	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R534	401 105 7909	MT-GLAZE 0.000 ZA 1/16W

Key No.	Part No.	Description
R541	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R542	401 105 3406	MT-GLAZE 27K JA 1/16W
R543	401 105 0603	MT-GLAZE 10K JA 1/16W
R544	401 113 6802	MT-GLAZE 11K JA 1/16W
R561	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R564	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R571	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R572	401 105 3406	MT-GLAZE 27K JA 1/16W
R573	401 105 0603	MT-GLAZE 10K JA 1/16W
R574	401 113 6802	MT-GLAZE 11K JA 1/16W
R581	401 105 0603	MT-GLAZE 10K JA 1/16W
R582	401 105 0603	MT-GLAZE 10K JA 1/16W
R583	401 105 0603	MT-GLAZE 10K JA 1/16W
R584	401 105 0603	MT-GLAZE 10K JA 1/16W
R586	401 105 0603	MT-GLAZE 10K JA 1/16W
R587	401 105 0603	MT-GLAZE 10K JA 1/16W
R8001	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8002	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8003	401 105 5202	MT-GLAZE 470 JA 1/16W
R8004	401 105 3109	MT-GLAZE 27 JA 1/16W
R8005	401 105 4205	MT-GLAZE 33K JA 1/16W
R8006	401 105 4205	MT-GLAZE 33K JA 1/16W
R8008	401 105 4205	MT-GLAZE 33K JA 1/16W
R8009	401 105 4205	MT-GLAZE 33K JA 1/16W
R801	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8010	401 105 4205	MT-GLAZE 33K JA 1/16W
R8011	401 105 4205	MT-GLAZE 33K JA 1/16W
R8013	401 105 4205	MT-GLAZE 33K JA 1/16W
R8015	401 113 6406	MT-GLAZE 5.1K JA 1/16W
R8016	401 113 6406	MT-GLAZE 5.1K JA 1/16W
R8018	401 113 6406	MT-GLAZE 5.1K JA 1/16W
R802	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R8020	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R803	401 105 0405	MT-GLAZE 100 JA 1/16W
R8031	401 105 0405	MT-GLAZE 100 JA 1/16W
R8032	401 105 0405	MT-GLAZE 100 JA 1/16W
R8033	401 105 0603	MT-GLAZE 10K JA 1/16W
R8034	401 105 0603	MT-GLAZE 10K JA 1/16W
R8036	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8037	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R8039	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R804	401 105 0405	MT-GLAZE 100 JA 1/16W
R806	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R808	401 105 0405	MT-GLAZE 100 JA 1/16W
R809	401 105 0405	MT-GLAZE 100 JA 1/16W
R810	401 105 0603	MT-GLAZE 10K JA 1/16W
R811	401 105 0603	MT-GLAZE 10K JA 1/16W
R812	401 105 0603	MT-GLAZE 10K JA 1/16W
R813	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R815	401 105 0405	MT-GLAZE 100 JA 1/16W
R816	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R817	401 105 0405	MT-GLAZE 100 JA 1/16W
R818	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R819	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R820	401 105 0603	MT-GLAZE 10K JA 1/16W
R821	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R822	401 105 0603	MT-GLAZE 10K JA 1/16W
R823	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R824	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R825	401 105 4502	MT-GLAZE 390 JA 1/16W
R826	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R828	401 105 2904	MT-GLAZE 22K JA 1/16W
R829	401 105 2904	MT-GLAZE 22K JA 1/16W
R830	401 105 2607	MT-GLAZE 22 JA 1/16W
R831	401 105 0900	MT-GLAZE 120 JA 1/16W
R832	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R833	401 105 0603	MT-GLAZE 10K JA 1/16W

Key No.	Part No.	Description
R834	401 105 0603	MT-GLAZE 10K JA 1/16W
R835	401 105 0603	MT-GLAZE 10K JA 1/16W
R836	401 105 0603	MT-GLAZE 10K JA 1/16W
R837	401 105 0603	MT-GLAZE 10K JA 1/16W
R838	401 105 0603	MT-GLAZE 10K JA 1/16W
R841	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R843	401 105 0504	MT-GLAZE 1K JA 1/16W
R844	401 105 0405	MT-GLAZE 100 JA 1/16W
R846	401 105 0603	MT-GLAZE 10K JA 1/16W
R848	401 105 2904	MT-GLAZE 22K JA 1/16W
R849	401 105 2904	MT-GLAZE 22K JA 1/16W
R850	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R851	401 105 2904	MT-GLAZE 22K JA 1/16W
R854	401 105 0603	MT-GLAZE 10K JA 1/16W
R855	401 105 0405	MT-GLAZE 100 JA 1/16W
R856	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R857	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R858	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R861	401 105 0603	MT-GLAZE 10K JA 1/16W
R863	401 105 0603	MT-GLAZE 10K JA 1/16W
R864	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R865	401 105 0603	MT-GLAZE 10K JA 1/16W
R866	401 105 0405	MT-GLAZE 100 JA 1/16W
R867	401 105 0405	MT-GLAZE 100 JA 1/16W
R868	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R869	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R871	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R872	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R873	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R874	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R875	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R876	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R877	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R878	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R879	401 105 0603	MT-GLAZE 10K JA 1/16W
R880	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R881	401 105 0603	MT-GLAZE 10K JA 1/16W
R882	401 105 0603	MT-GLAZE 10K JA 1/16W
R883	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R884	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R885	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R886	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R887	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R889	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R890	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R891	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R892	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R893	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R894	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R895	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R896	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R897	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R898	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9401	401 105 0603	MT-GLAZE 10K JA 1/16W
R9402	401 105 0603	MT-GLAZE 10K JA 1/16W
R9403	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9404	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9405	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9406	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9407	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9408	401 105 0603	MT-GLAZE 10K JA 1/16W
R9411	401 105 0603	MT-GLAZE 10K JA 1/16W
R9412	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9801	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R9803	401 105 8005	MT-GLAZE 1M JA 1/16W
R9804	401 105 0405	MT-GLAZE 100 JA 1/16W
R9805	401 105 0405	MT-GLAZE 100 JA 1/16W
R9806	401 105 0405	MT-GLAZE 100 JA 1/16W
R9807	401 105 0405	MT-GLAZE 100 JA 1/16W
R9808	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9812	401 105 5400	MT-GLAZE 47K JA 1/16W
R9813	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9814	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9819	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9821	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9822	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9823	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9824	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9825	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R9826	401 105 0405	MT-GLAZE 100 JA 1/16W
R9827	401 105 0504	MT-GLAZE 1K JA 1/16W
R9829	401 105 0603	MT-GLAZE 10K JA 1/16W
TRANSFORMER		
T1151	645 044 3626	FILTER,LP 7MHZ
T1161	645 044 3626	FILTER,LP 7MHZ
T161	645 044 3626	FILTER,LP 7MHZ
COIL		
L1101	645 026 1008	INDUCTOR,3.3U M
L1102	645 021 1720	INDUCTOR,4.7U J
L1131	645 026 0964	INDUCTOR,10U K
L1133	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
L1151	645 026 1008	INDUCTOR,3.3U M
L1161	645 021 1614	INDUCTOR,12U J
L1501	645 020 1776	INDUCTOR,3.3U M
L1502	645 020 1776	INDUCTOR,3.3U M
L1531	645 020 1776	INDUCTOR,3.3U M
L1532	645 020 1776	INDUCTOR,3.3U M
L1561	645 020 1776	INDUCTOR,3.3U M
L1562	645 020 1776	INDUCTOR,3.3U M
L201	645 020 1776	INDUCTOR,3.3U M
L202	645 020 1776	INDUCTOR,3.3U M
L203	645 020 1776	INDUCTOR,3.3U M
L2101	645 021 1669	INDUCTOR,22U J
L2102	645 021 1737	INDUCTOR,47U J
L2103	645 021 1737	INDUCTOR,47U J
L2116	645 017 4520	INDUCTOR,100U J
L2304	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
L2305	645 020 1776	INDUCTOR,3.3U M
L231	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
L232	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
L2591	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
L3101	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
L3102	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
L3103	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
L3211	645 020 1776	INDUCTOR,3.3U M
L3221	645 020 1776	INDUCTOR,3.3U M
L3231	645 020 1776	INDUCTOR,3.3U M
L3501	645 026 1008	INDUCTOR,3.3U M
L3551	645 026 1008	INDUCTOR,3.3U M
L3601	401 035 4306	MT-GLAZE 10 JA 1/8W
L3611	645 020 1776	INDUCTOR,3.3U M
L3631	645 020 1776	INDUCTOR,3.3U M
L3651	645 020 1776	INDUCTOR,3.3U M
L4102	645 001 4512	INDUCTOR,10U K
L4103	645 001 4512	INDUCTOR,10U K
L4104	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
L4105	645 001 4512	INDUCTOR,10U K
L4106	645 026 1015	INDUCTOR,33U K
L4107	645 001 4512	INDUCTOR,10U K
L4108	645 026 1008	INDUCTOR,3.3U M
L4201	645 020 1776	INDUCTOR,3.3U M
L4202	645 020 1776	INDUCTOR,3.3U M
L4203	645 020 1776	INDUCTOR,3.3U M

Key No.	Part No.	Description
L4204	645 020 1776	INDUCTOR,3.3U M
L4231	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
L4501	645 020 1776	INDUCTOR,3.3U M
L501	645 020 1776	INDUCTOR,3.3U M
L502	645 020 1776	INDUCTOR,3.3U M
L531	645 020 1776	INDUCTOR,3.3U M
L532	645 020 1776	INDUCTOR,3.3U M
L561	645 020 1776	INDUCTOR,3.3U M
L562	645 020 1776	INDUCTOR,3.3U M
L6301	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
L8001	645 026 0988	INDUCTOR,2.2U M
L8002	645 026 0988	INDUCTOR,2.2U M
L8003	645 026 0988	INDUCTOR,2.2U M
L8004	645 026 0988	INDUCTOR,2.2U M
L9401	645 026 1008	INDUCTOR,3.3U M
L9801	645 021 1645	INDUCTOR,2.2U J
DIODE		
D1101	407 149 0807	DIODE 1SS355-TE-17
D1161	407 149 0807	DIODE 1SS355-TE-17
D1162	407 149 0807	DIODE 1SS355-TE-17
D1851	407 149 0807	DIODE 1SS355-TE-17
D2303	407 149 0807	DIODE 1SS355-TE-17
D2304	407 149 0807	DIODE 1SS355-TE-17
D2305	407 149 0807	DIODE 1SS355-TE-17
D2306	407 149 0807	DIODE 1SS355-TE-17
D3501	407 149 0807	DIODE 1SS355-TE-17
D3571	407 149 0807	DIODE 1SS355-TE-17
D3601	407 149 0807	DIODE 1SS355-TE-17
D4181	407 149 0807	DIODE 1SS355-TE-17
D4182	407 149 0807	DIODE 1SS355-TE-17
D4201	407 149 0807	DIODE 1SS355-TE-17
D4501	407 149 0807	DIODE 1SS355-TE-17
D4502	407 149 0807	DIODE 1SS355-TE-17
D4801	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D4802	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D4803	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D4804	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D4805	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D4806	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D4807	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D4808	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D4809	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D4811	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D4812	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D4813	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D4814	407 149 0807	DIODE 1SS355-TE-17
D4816	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D8001	407 149 0807	DIODE 1SS355-TE-17
D801	407 149 0807	DIODE 1SS355-TE-17
D8031	407 149 0807	DIODE 1SS355-TE-17
D8032	407 149 0807	DIODE 1SS355-TE-17
MISCELLANEOUS		
IC4121	405 154 9501	TR MCH6602-TL
IC4122	405 154 9501	TR MCH6602-TL
IC806	407 221 9704	SENSOR MPXA4115A6T1
X1101	645 045 9122	OSC,CRYSTAL 20MHZ
X1851	645 037 4609	OSC,CRYSTAL 32.768KHZ
X3101	645 047 1568	OSC,CRYSTAL 16.200MHZ
X361	645 047 6587	OSC,CRYSTAL 26.000MHZ
X362	645 047 6846	OSC,CRYSTAL 24.000MHZ
X801	645 035 2249	OSC,CRYSTAL 6.7584MHZ
X9801	645 035 8906	OSC,CRYSTAL 48MHZ

POWER BOARD

610 297 3631 ASSY,PWB,POWER MA8AA

Key No.	Part No.	Description
TRANSISTOR		
Q601	405 161 9600	TR SPP20N60S5
Q602	405 161 9600	TR SPP20N60S5
Q621	405 014 4509	TR 2SC2412K T146 R
Q622	405 134 5905	TR 2SA1037AK-T146-R
Q623	405 014 4509	TR 2SC2412K T146 R
Q624	405 134 5905	TR 2SA1037AK-T146-R
Q681	405 014 4509	TR 2SC2412K T146 R
INTEGRATED CIRCUIT		
IC601	409 483 3803	IC FA5332M
IC651	409 421 4701	IC STR-Z2156
IC681	409 344 6509	IC UPC1093T-E1
CAPACITOR		
C607	403 260 1600	MT-POLYEST 1U J 400V
C608	403 222 1303	CERAMIC 1000P K 1K
C609	403 222 1303	CERAMIC 1000P K 1K
C611	403 260 1600	MT-POLYEST 1U J 400V
C612	403 356 1804	ELECT 220U M 35V
C613	403 341 6104	ELECT 100U M 25V
C614	403 341 6104	ELECT 100U M 25V
C616	404 088 2602	ELECT 390U M 450V
C618	403 323 8706	MT-POLYEST 0.047U K 450V
C621	403 215 2904	CERAMIC 0.022U K 25V
C622	403 157 6800	CERAMIC 680P K 50V
C623	403 215 2201	CERAMIC 0.01U K 50V
C624	403 338 0207	CERAMIC 0.068U Z 50V
C626	403 164 0204	CERAMIC 0.1U Z 25V
C627	403 164 0204	CERAMIC 0.1U Z 25V
C628	403 157 3304	CERAMIC 68P J 50V
C629	403 157 6602	CERAMIC 470P K 50V
C631	403 281 5007	CERAMIC 0.033U K 25V
C632	403 164 0204	CERAMIC 0.1U Z 25V
C633	403 164 0204	CERAMIC 0.1U Z 25V
C634	403 164 0204	CERAMIC 0.1U Z 25V
C636	403 323 8706	MT-POLYEST 0.047U K 450V
C651	403 162 6604	ELECT 2.2U M 50V
C652	403 237 7901	MT-COMPO 0.22U J 50V
C653	403 113 3805	CERAMIC 1000P K 50V
C654	403 247 3306	CERAMIC 330P K 2K
C656	403 164 0204	CERAMIC 0.1U Z 25V
C657	403 218 8804	CERAMIC 220P K 2K
C658	403 083 4307	POLYPRO 0.022U J 400V
C659	403 157 6800	CERAMIC 680P K 50V
C661	403 162 6208	ELECT 1U M 50V
C662	403 356 1804	ELECT 220U M 35V
C663	403 164 0204	CERAMIC 0.1U Z 25V
C664	403 281 5205	CERAMIC 0.22U Z 16V
C681	403 355 9504	ELECT 4700U M 25V
C682	403 164 0204	CERAMIC 0.1U Z 25V
C683	403 368 8808	ELECT 4700U M 10V
C684	403 164 0204	CERAMIC 0.1U Z 25V
C685	403 325 8605	ELECT 220U M 16V
C686	403 323 1301	CERAMIC 0.47U Z 10V
C688	403 164 0204	CERAMIC 0.1U Z 25V
C689	403 325 8506	ELECT 1000U M 16V
C692	403 323 8805	CERAMIC 2.2U Z 16V
RESISTOR		
R602	401 242 3901	MT-GLAZE 240K JA 1/2W
R603	401 242 3901	MT-GLAZE 240K JA 1/2W
R604	401 258 8204	MT-GLAZE 680 JA 1/3W

Key No.	Part No.	Description
R606	402 080 8806	MT-GLAZE 680 KA 1W
R607	401 237 0007	MT-GLAZE 47K JA 1W
R608	401 237 0007	MT-GLAZE 47K JA 1W
R609	401 237 0007	MT-GLAZE 47K JA 1W
R610	401 237 0007	MT-GLAZE 47K JA 1W
R611	401 237 0007	MT-GLAZE 47K JA 1W
R612	401 237 0007	MT-GLAZE 47K JA 1W
R613	402 088 1809	RESISTER 0.1 JB 5W
R614	402 088 1809	RESISTER 0.1 JB 5W
R615	401 105 0405	MT-GLAZE 100 JA 1/16W
R616	401 105 0504	MT-GLAZE 1K JA 1/16W
R617	401 105 1600	MT-GLAZE 15K JA 1/16W
R618	401 105 0306	MT-GLAZE 10 JA 1/16W
R620	401 105 0405	MT-GLAZE 100 JA 1/16W
R621	401 105 2607	MT-GLAZE 22 JA 1/16W
R622	401 234 5500	MT-GLAZE 18K FA 1/16W
R623	401 105 4304	MT-GLAZE 330K JA 1/16W
R624	401 105 2607	MT-GLAZE 22 JA 1/16W
R625	401 158 4108	MT-GLAZE 4.7 JA 1/16W
R626	401 105 4007	MT-GLAZE 330 JA 1/16W
R627	401 158 4108	MT-GLAZE 4.7 JA 1/16W
R628	401 105 0405	MT-GLAZE 100 JA 1/16W
R631	401 105 0603	MT-GLAZE 10K JA 1/16W
R632	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R633	401 105 5509	MT-GLAZE 470K JA 1/16W
R634	401 113 8707	MT-GLAZE 130K JA 1/16W
R635	401 105 0405	MT-GLAZE 100 JA 1/16W
R636	401 105 0504	MT-GLAZE 1K JA 1/16W
R637	401 218 4406	MT-GLAZE 1.2K FA 1/16W
R638	401 259 9002	MT-GLAZE 150K FA 1/2W
R639	401 259 9002	MT-GLAZE 150K FA 1/2W
R641	401 259 9002	MT-GLAZE 150K FA 1/2W
R642	401 259 9002	MT-GLAZE 150K FA 1/2W
R643	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R644	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R646	401 105 1600	MT-GLAZE 15K JA 1/16W
R647	401 111 6309	MT-GLAZE 470 JA 1/2W
R648	401 111 6309	MT-GLAZE 470 JA 1/2W
R650	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R651	401 237 0007	MT-GLAZE 47K JA 1W
R652	401 237 0007	MT-GLAZE 47K JA 1W
R653	401 237 0007	MT-GLAZE 47K JA 1W
R654	401 237 0007	MT-GLAZE 47K JA 1W
R655	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R656	401 237 0007	MT-GLAZE 47K JA 1W
R657	401 237 0007	MT-GLAZE 47K JA 1W
⚠ R658	402 081 2902	FUSIBLE RES 22 JH 1/2W
R659	401 238 4509	MT-GLAZE 47 JA 1/3W
R671	401 105 0504	MT-GLAZE 1K JA 1/16W
R672	401 257 7406	MT-GLAZE 120 JA 1/3W
R673	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R674	401 105 0603	MT-GLAZE 10K JA 1/16W
R680	401 212 0206	MT-GLAZE 33K FA 1/16W
R681	401 105 0603	MT-GLAZE 10K JA 1/16W
R682	401 105 3208	MT-GLAZE 270 JA 1/16W
R683	401 105 0504	MT-GLAZE 1K JA 1/16W
R685	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R686	401 105 0504	MT-GLAZE 1K JA 1/16W
R687	401 212 0503	MT-GLAZE 6.8K FA 1/16W
R689	401 105 0504	MT-GLAZE 1K JA 1/16W
R690	401 105 0306	MT-GLAZE 10 JA 1/16W
R691	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R692	401 105 0504	MT-GLAZE 1K JA 1/16W
R693	401 105 0603	MT-GLAZE 10K JA 1/16W
R694	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R695	401 105 0504	MT-GLAZE 1K JA 1/16W
R697	401 299 1608	MT-GLAZE 1 JE 1/2W
R698	401 299 1608	MT-GLAZE 1 JE 1/2W
R699	401 238 4202	MT-GLAZE 1.5K JA 1/3W
VARIABLE RESISTOR		
VR601	645 025 7414	VR,SEMI,1K S
VR681	645 025 7414	VR,SEMI,1K S
TRANSFORMER		
⚠ TSW601	645 027 4145	SWITCH,THERMAL
	645 031 0256	THERMOSTATS
T601	645 051 9369	INDUCTOR,625U
⚠ T651	645 028 0641	TRANS,POWER,PULSE
COIL		
L603	645 052 6213	LINE FILTER
L651	645 020 1776	INDUCTOR,3.3U M
L681	645 048 5381	INDUCTOR,100U K
DIODE		
DB601	408 045 4906	DIODE RBV-1506 LF-B
	407 143 6003	DIODE RBV-1506
DS601	407 219 0805	THYRISTOR TF861S
DS602	407 219 0805	THYRISTOR TF861S
D601	407 190 4106	DIODE SFPL-52V
D602	407 190 4106	DIODE SFPL-52V
D603	407 149 6304	DIODE SFPB-54V
D604	407 225 4408	DIODE FMX-G26S
D605	407 223 0808	ZENER DIODE 02DZ22Y(TPH3)
D606	407 149 0807	DIODE 1SS355-TE-17
D607	407 149 0807	DIODE 1SS355-TE-17
D608	407 149 0807	DIODE 1SS355-TE-17
D609	407 149 0807	DIODE 1SS355-TE-17
D610	407 149 6304	DIODE SFPB-54V
D611	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D612	407 149 0807	DIODE 1SS355-TE-17
D614	407 149 0807	DIODE 1SS355-TE-17
D651	407 190 4106	DIODE SFPL-52V
D652	407 124 6800	DIODE AG01A
D653	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D681	407 202 9808	DIODE FMB-26L
D682	407 202 9808	DIODE FMB-26L
D683	407 190 4106	DIODE SFPL-52V
D684	407 190 4106	DIODE SFPL-52V
D686	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
MISCELLANEOUS		
FB601	610 229 3531	CORE
FB602	610 229 3531	CORE
⚠ PC601	407 223 7302	PC TLP421F(D4-GB-TP4)
	407 223 8309	PC TLP421F(D4-GR-TP4)
⚠ PC602	407 223 7302	PC TLP421F(D4-GB-TP4)
	407 223 8309	PC TLP421F(D4-GR-TP4)
⚠ PC603	407 223 7302	PC TLP421F(D4-GB-TP4)
	407 223 8309	PC TLP421F(D4-GR-TP4)
PTH601	408 037 4600	THERMISTOR NTH11D8R0LA

SUB POWER BOARD

610 297 3648 ASSY,PWB,SUB POWER MA8AA

TRANSISTOR		
Q6603	405 047 9007	TR 2SB1204-S-TL
	405 047 9106	TR 2SB1204-T-TL
Q6604	405 014 4509	TR 2SC2412K T146 R
Q6607	405 014 4509	TR 2SC2412K T146 R
Q6608	405 047 9007	TR 2SB1204-S-TL
	405 047 9106	TR 2SB1204-T-TL

Key No.	Part No.	Description
Q6609	405 014 4509	TR 2SC2412K T146 R
Q6611	405 047 9007	TR 2SB1204-S-TL
	405 047 9106	TR 2SB1204-T-TL
Q6612	405 014 4509	TR 2SC2412K T146 R
Q6613	405 014 4509	TR 2SC2412K T146 R
Q6614	405 014 4509	TR 2SC2412K T146 R
Q6616	405 014 4509	TR 2SC2412K T146 R
Q6617	405 014 4509	TR 2SC2412K T146 R
Q6618	405 164 2707	TR SI9803DY
Q6622	405 156 0209	TR 2SK2376
Q6623	405 014 4509	TR 2SC2412K T146 R
Q6624	405 014 4509	TR 2SC2412K T146 R
Q6626	405 047 9007	TR 2SB1204-S-TL
	405 047 9106	TR 2SB1204-T-TL
Q6627	405 047 9007	TR 2SB1204-S-TL
	405 047 9106	TR 2SB1204-T-TL
Q6628	405 014 4509	TR 2SC2412K T146 R
Q6629	405 156 0209	TR 2SK2376
Q6661	405 014 4509	TR 2SC2412K T146 R
INTEGRATED CIRCUIT		
IC6601	409 461 7809	IC PQ20WZ11
IC6602	409 459 5404	IC FA7612CN
IC6603	409 459 5404	IC FA7612CN
IC6604	409 481 8503	IC AD8400AR1
IC6606	409 481 8503	IC AD8400AR1
IC6607	409 461 7809	IC PQ20WZ11
IC6608	409 501 9206	IC LTC1622CS8
IC6609	409 461 7809	IC PQ20WZ11
IC6611	409 344 6509	IC UPC1093T-E1
IC6612	409 344 6509	IC UPC1093T-E1
IC6616	409 459 5404	IC FA7612CN
CAPACITOR		
CN66A	645 008 3389	PLUG,15P
C6601	403 164 0204	CERAMIC 0.1U Z 25V
C6602	403 164 0204	CERAMIC 0.1U Z 25V
C6603	403 229 3508	ELECT 100U M 16V
C6605	403 348 3700	ELECT 470U M 25V
C6606	403 333 0806	ELECT 1000U M 10V
C6608	403 348 3700	ELECT 470U M 25V
C6609	403 113 3805	CERAMIC 1000P K 50V
C6611	403 155 2309	CERAMIC 4700P K 50V
C6612	403 164 0204	CERAMIC 0.1U Z 25V
C6613	403 325 8506	ELECT 1000U M 16V
C6614	403 304 3102	ELECT 22U M 16V
C6617	403 304 3102	ELECT 22U M 16V
C6618	403 113 3805	CERAMIC 1000P K 50V
C6619	403 325 8506	ELECT 1000U M 16V
C6620	403 164 0204	CERAMIC 0.1U Z 25V
C6621	403 164 0204	CERAMIC 0.1U Z 25V
C6622	403 229 3508	ELECT 100U M 16V
C6623	403 164 0204	CERAMIC 0.1U Z 25V
C6624	403 348 3700	ELECT 470U M 25V
C6625	403 164 0204	CERAMIC 0.1U Z 25V
C6626	403 164 0204	CERAMIC 0.1U Z 25V
C6627	403 325 8506	ELECT 1000U M 16V
C6628	403 333 0806	ELECT 1000U M 10V
C6629	403 325 8605	ELECT 220U M 16V
C6632	403 325 8506	ELECT 1000U M 16V
C6633	403 334 6906	ELECT 1000U M 6.3V
C6634	403 334 6906	ELECT 1000U M 6.3V
C6636	403 333 0806	ELECT 1000U M 10V
C6637	403 333 0806	ELECT 1000U M 10V
C6639	403 157 6602	CERAMIC 470P K 50V
C6640	403 164 0204	CERAMIC 0.1U Z 25V
C6641	403 157 3601	CERAMIC 100P J 50V
C6642	403 157 3601	CERAMIC 100P J 50V
C6643	403 333 0806	ELECT 1000U M 10V
C6644	403 164 0204	CERAMIC 0.1U Z 25V
C6645	403 164 0204	CERAMIC 0.1U Z 25V
C6646	403 164 0204	CERAMIC 0.1U Z 25V
C6647	403 354 8409	ELECT 2200U M 6.3V
C6653	403 347 5507	POS-SOLID 470U M 4V
C6654	403 164 0204	CERAMIC 0.1U Z 25V
C6655	403 162 5300	ELECT 4.7U M 25V
C6661	403 164 0204	CERAMIC 0.1U Z 25V
C6662	403 325 8605	ELECT 220U M 16V
C6663	403 325 8605	ELECT 220U M 16V
C6664	403 325 8605	ELECT 220U M 16V
C6666	403 325 8605	ELECT 220U M 16V
C6667	403 331 0303	ELECT 470U M 16V
C6668	403 331 0303	ELECT 470U M 16V
C6669	403 348 3700	ELECT 470U M 25V
C6671	403 113 3805	CERAMIC 1000P K 50V
C6672	403 155 2309	CERAMIC 4700P K 50V
C6673	403 162 5300	ELECT 4.7U M 25V
C6674	403 325 8506	ELECT 1000U M 16V
C6678	403 354 8409	ELECT 2200U M 6.3V
C6778	403 205 7803	TA-SOLID 2.2U M 16V
RESISTOR		
R6601	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R6602	401 219 1107	MT-GLAZE 1.8K FA 1/16W
R6604	401 203 9904	MT-GLAZE 4.7K FA 1/16W
R6606	401 105 0405	MT-GLAZE 100 JA 1/16W
R6610	401 238 4202	MT-GLAZE 1.5K JA 1/3W
R6611	401 299 1608	MT-GLAZE 1 JE 1/2W
R6620	401 162 6303	MT-GLAZE 330 JA 1W
R6621	401 105 8203	MT-GLAZE 68K JA 1/16W
R6622	401 105 4304	MT-GLAZE 330K JA 1/16W
R6623	401 105 5103	MT-GLAZE 47 JA 1/16W
R6624	401 290 1508	MT-GLAZE 0.1 JE 1/2W
R6625	401 105 2201	MT-GLAZE 180K JA 1/16W
R6626	401 105 0603	MT-GLAZE 10K JA 1/16W
R6627	401 105 2904	MT-GLAZE 22K JA 1/16W
R6628	401 202 4009	MT-GLAZE 10K FA 1/16W
R6629	401 219 1107	MT-GLAZE 1.8K FA 1/16W
R6630	401 212 0206	MT-GLAZE 33K FA 1/16W
R6631	401 105 4007	MT-GLAZE 330 JA 1/16W
R6632	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6633	401 105 0603	MT-GLAZE 10K JA 1/16W
R6634	401 234 5500	MT-GLAZE 18K FA 1/16W
R6636	401 260 1903	MT-GLAZE 4.3K FA 1/16W
R6637	401 257 7000	MT-GLAZE 820 FA 1/16W
R6638	401 105 5103	MT-GLAZE 47 JA 1/16W
R6640	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6641	401 105 0603	MT-GLAZE 10K JA 1/16W
R6642	401 212 0503	MT-GLAZE 6.8K FA 1/16W
R6643	401 105 0603	MT-GLAZE 10K JA 1/16W
R6644	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6645	401 290 1508	MT-GLAZE 0.1 JE 1/2W
R6646	401 105 2201	MT-GLAZE 180K JA 1/16W
R6647	401 105 5103	MT-GLAZE 47 JA 1/16W
R6648	401 162 6303	MT-GLAZE 330 JA 1W
R6649	401 234 5500	MT-GLAZE 18K FA 1/16W
R6650	401 105 0603	MT-GLAZE 10K JA 1/16W
R6651	401 260 1903	MT-GLAZE 4.3K FA 1/16W
R6652	401 212 0206	MT-GLAZE 33K FA 1/16W
R6653	401 105 4304	MT-GLAZE 330K JA 1/16W
R6654	401 105 8203	MT-GLAZE 68K JA 1/16W
R6655	401 299 1608	MT-GLAZE 1 JE 1/2W
R6656	401 240 6409	MT-GLAZE 2.2 JE 1/2W
R6657	401 257 7000	MT-GLAZE 820 FA 1/16W
R6658	401 105 5103	MT-GLAZE 47 JA 1/16W
R6659	401 105 5301	MT-GLAZE 4.7K JA 1/16W

Key No.	Part No.	Description
R6660	401 105 0603	MT-GLAZE 10K JA 1/16W
R6661	401 105 0603	MT-GLAZE 10K JA 1/16W
R6662	401 105 0504	MT-GLAZE 1K JA 1/16W
R6663	401 238 4202	MT-GLAZE 1.5K JA 1/3W
R6664	401 105 0603	MT-GLAZE 10K JA 1/16W
R6665	401 299 1608	MT-GLAZE 1 JE 1/2W
R6666	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6667	401 105 0603	MT-GLAZE 10K JA 1/16W
R6668	401 105 0504	MT-GLAZE 1K JA 1/16W
R6669	401 105 0603	MT-GLAZE 10K JA 1/16W
R6670	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6671	401 203 9904	MT-GLAZE 4.7K FA 1/16W
R6672	401 105 5202	MT-GLAZE 470 JA 1/16W
R6673	401 105 8203	MT-GLAZE 68K JA 1/16W
R6674	401 105 4304	MT-GLAZE 330K JA 1/16W
R6675	401 247 0202	MT-GLAZE 3.9K FA 1/16W
R6676	401 212 0206	MT-GLAZE 33K FA 1/16W
R6677	401 230 2503	MT-GLAZE 1K FA 1/16W
R6678	401 105 2607	MT-GLAZE 22 JA 1/16W
R6679	401 247 0202	MT-GLAZE 3.9K FA 1/16W
R6681	401 212 0008	MT-GLAZE 15K FA 1/16W
R6682	401 162 6303	MT-GLAZE 330 JA 1W
R6683	401 105 5103	MT-GLAZE 47 JA 1/16W
R6684	401 290 1508	MT-GLAZE 0.1 JE 1/2W
R6686	401 105 2201	MT-GLAZE 180K JA 1/16W
R6687	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6689	401 105 0603	MT-GLAZE 10K JA 1/16W
R6690	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R6691	401 105 0603	MT-GLAZE 10K JA 1/16W
R6692	401 235 4403	MT-GLAZE 560 FA 1/16W
R6694	401 225 5601	MT-GLAZE 2.2 JA 1W
R6695	401 290 1508	MT-GLAZE 0.1 JE 1/2W
R6708	401 219 1107	MT-GLAZE 1.8K FA 1/16W
R6709	401 219 1107	MT-GLAZE 1.8K FA 1/16W
R6710	401 105 1402	MT-GLAZE 150 JA 1/16W
R6711	401 105 0504	MT-GLAZE 1K JA 1/16W
R6712	401 105 0504	MT-GLAZE 1K JA 1/16W
R6713	401 105 0504	MT-GLAZE 1K JA 1/16W
R6714	401 105 0504	MT-GLAZE 1K JA 1/16W
R6717	401 105 0306	MT-GLAZE 10 JA 1/16W
R6718	401 105 0306	MT-GLAZE 10 JA 1/16W
R6719	401 105 0504	MT-GLAZE 1K JA 1/16W
R6720	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R6722	401 105 0603	MT-GLAZE 10K JA 1/16W
R6725	401 290 1508	MT-GLAZE 0.1 JE 1/2W
R6726	401 276 4707	MT-GLAZE 0.000 ZA 1/3W
R6727	401 105 0603	MT-GLAZE 10K JA 1/16W
R6728	401 276 4707	MT-GLAZE 0.000 ZA 1/3W
R6729	401 105 0603	MT-GLAZE 10K JA 1/16W
R6730	401 290 1508	MT-GLAZE 0.1 JE 1/2W
R6731	401 105 0603	MT-GLAZE 10K JA 1/16W
R6732	401 105 0603	MT-GLAZE 10K JA 1/16W
R6736	401 203 9904	MT-GLAZE 4.7K FA 1/16W
R6737	401 105 5202	MT-GLAZE 470 JA 1/16W
R6738	401 247 0202	MT-GLAZE 3.9K FA 1/16W
R6739	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6742	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6751	401 036 3605	MT-GLAZE 3.3 JA 1/8W
R6752	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
R6753	401 263 1306	MT-GLAZE 1.8 JA 1/3W
R6756	401 105 0504	MT-GLAZE 1K JA 1/16W
R6757	401 105 0603	MT-GLAZE 10K JA 1/16W
R6758	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6759	401 230 8000	MT-GLAZE 1K JA 1/3W
R6777	401 294 5502	MT-GLAZE 0.03 JX 1/4W
R6779	401 294 5502	MT-GLAZE 0.03 JX 1/4W
R6781	401 105 0603	MT-GLAZE 10K JA 1/16W
R6782	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6783	401 105 0603	MT-GLAZE 10K JA 1/16W
R6784	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R6785	401 219 1107	MT-GLAZE 1.8K FA 1/16W
R6786	401 105 0603	MT-GLAZE 10K JA 1/16W
R6787	401 230 2503	MT-GLAZE 1K FA 1/16W
R6788	401 203 9805	MT-GLAZE 2.7K FA 1/16W
R6795	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
COIL		
L6604	645 048 5381	INDUCTOR,100U K
L6606	645 048 5688	INDUCTOR,47U K
L6607	645 037 4791	INDUCTOR,100U M
L6608	645 048 5688	INDUCTOR,47U K
L6609	645 046 1996	INDUCTOR,5.6U N
L6611	645 007 8125	INDUCTOR,47U K
L6612	645 048 5688	INDUCTOR,47U K
L6613	645 007 7975	INDUCTOR,100U K
L6614	645 048 5688	INDUCTOR,47U K
L6616	645 048 5381	INDUCTOR,100U K
L6617	645 048 5688	INDUCTOR,47U K
L6619	645 007 7975	INDUCTOR,100U K
DIODE		
D6601	407 004 1000	DIODE DCC010-TB
D6602	407 223 0907	ZENER DIODE 02DZ4.7Y(TPH3
D6603	407 223 0907	ZENER DIODE 02DZ4.7Y(TPH3
D6604	407 149 0807	DIODE 1SS355-TE-17
D6605	407 004 1000	DIODE DCC010-TB
D6606	407 223 5001	DIODE D1FM3
D6607	407 222 1301	DIODE CMS04
D6608	407 149 0807	DIODE 1SS355-TE-17
D6609	407 223 5001	DIODE D1FM3
D6610	407 149 0807	DIODE 1SS355-TE-17
D6611	407 223 5001	DIODE D1FM3
D6612	407 149 0807	DIODE 1SS355-TE-17
D6613	407 149 0807	DIODE 1SS355-TE-17
D6614	407 149 0807	DIODE 1SS355-TE-17
D6616	407 149 0807	DIODE 1SS355-TE-17
D6617	407 149 0807	DIODE 1SS355-TE-17
D6618	407 149 0807	DIODE 1SS355-TE-17
D6619	407 201 2701	DIODE RB051L-40-TE25
D6621	407 201 2701	DIODE RB051L-40-TE25
D6624	407 223 0907	ZENER DIODE 02DZ4.7Y(TPH3
D6626	407 223 0907	ZENER DIODE 02DZ4.7Y(TPH3
D6627	407 149 0807	DIODE 1SS355-TE-17
D6631	407 223 0907	ZENER DIODE 02DZ4.7Y(TPH3
D6632	407 223 0907	ZENER DIODE 02DZ4.7Y(TPH3
D6633	407 223 0907	ZENER DIODE 02DZ4.7Y(TPH3
D6634	407 223 0907	ZENER DIODE 02DZ4.7Y(TPH3
D6652	407 190 4106	DIODE SFPL-52V
D6653	407 190 4106	DIODE SFPL-52V
D6661	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D6662	407 149 0807	DIODE 1SS355-TE-17
D6663	407 223 0907	ZENER DIODE 02DZ4.7Y(TPH3
D6664	407 149 0807	DIODE 1SS355-TE-17

DRIVE BOARD

610 297 3655ASSY,PWB,DRIVE MA8AA

TRANSISTOR

Q1681	405 134 5905	TR 2SA1037AK-T146-R
Q1682	405 134 5905	TR 2SA1037AK-T146-R

Key No.	Part No.	Description
INTEGRATED CIRCUIT		
IC1601	409 085 1900	IC LB1645N
IC1602	409 114 4803	IC LB1641
IC1611	409 114 4803	IC LB1641
IC1621	409 124 5906	IC L78M12T-TL
IC1631	410 405 9308	IC TDA7056AT/N2
IC1632	410 405 9308	IC TDA7056AT/N2
IC1641	409 404 6302	IC M62320FP
IC1652	409 367 1604	IC BH3540AFS-E2
CAPACITOR		
CN16C	645 008 3365	PLUG,12P
C1601	403 325 8506	ELECT 1000U M 16V
C1602	403 149 9208	CERAMIC 0.01U Z 50V
C1603	403 149 9208	CERAMIC 0.01U Z 50V
C1604	403 325 8605	ELECT 220U M 16V
C1606	403 149 9208	CERAMIC 0.01U Z 50V
C1607	403 149 9208	CERAMIC 0.01U Z 50V
C1608	403 325 8605	ELECT 220U M 16V
C1612	403 149 9208	CERAMIC 0.01U Z 50V
C1613	403 149 9208	CERAMIC 0.01U Z 50V
C1614	403 325 8605	ELECT 220U M 16V
C1621	403 331 0303	ELECT 470U M 16V
C1622	403 331 0303	ELECT 470U M 16V
C1623	403 164 0204	CERAMIC 0.1U Z 25V
C1624	403 164 0204	CERAMIC 0.1U Z 25V
C1626	403 331 0303	ELECT 470U M 16V
C1631	403 325 8605	ELECT 220U M 16V
C1632	403 323 8805	CERAMIC 2.2U Z 16V
C1633	403 164 0204	CERAMIC 0.1U Z 25V
C1634	403 323 8805	CERAMIC 2.2U Z 16V
C1636	403 325 8605	ELECT 220U M 16V
C1637	403 164 0204	CERAMIC 0.1U Z 25V
C1641	403 164 0204	CERAMIC 0.1U Z 25V
C1642	403 304 1801	ELECT 100U M 6.3V
C1643	403 164 0204	CERAMIC 0.1U Z 25V
C1661	403 323 8805	CERAMIC 2.2U Z 16V
C1671	403 323 8805	CERAMIC 2.2U Z 16V
C1672	403 323 8805	CERAMIC 2.2U Z 16V
C1673	403 304 3102	ELECT 22U M 16V
C1674	403 229 3508	ELECT 100U M 16V
C1675	403 229 3508	ELECT 100U M 16V
C1676	403 304 3102	ELECT 22U M 16V
C1677	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
C1678	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
C1679	403 164 0204	CERAMIC 0.1U Z 25V
RESISTOR		
R1601	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R1602	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R1603	401 105 0504	MT-GLAZE 1K JA 1/16W
R1604	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R1606	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R1607	401 105 0504	MT-GLAZE 1K JA 1/16W
R1612	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R1613	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R1614	401 105 0504	MT-GLAZE 1K JA 1/16W
R1621	401 184 2000	MT-GLAZE 2.2 JA 1/2W
R1622	401 184 2000	MT-GLAZE 2.2 JA 1/2W
R1623	401 184 2000	MT-GLAZE 2.2 JA 1/2W
R1624	401 190 1400	MT-GLAZE 0.000 ZA 1/2W
R1630	401 276 4707	MT-GLAZE 0.000 ZA 1/3W
R1631	401 276 4707	MT-GLAZE 0.000 ZA 1/3W
R1632	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1633	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R1635	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R1636	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1638	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1639	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1641	401 105 0405	MT-GLAZE 100 JA 1/16W
R1642	401 105 0405	MT-GLAZE 100 JA 1/16W
R1643	401 105 6100	MT-GLAZE 560K JA 1/16W
R1644	401 105 6100	MT-GLAZE 560K JA 1/16W
R1651	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1652	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1657	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1658	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1661	401 189 8304	MT-GLAZE 180 JA 1/3W
R1671	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1674	401 105 6506	MT-GLAZE 680 JA 1/16W
R1680	401 105 8104	MT-GLAZE 56K JA 1/16W
R1681	401 105 0603	MT-GLAZE 10K JA 1/16W
R1682	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R1683	401 113 6406	MT-GLAZE 5.1K JA 1/16W
R1684	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R1685	401 105 8104	MT-GLAZE 56K JA 1/16W
R1686	401 105 0603	MT-GLAZE 10K JA 1/16W
R1687	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R1688	401 113 6406	MT-GLAZE 5.1K JA 1/16W
R1689	401 105 4106	MT-GLAZE 3.3K JA 1/16W
DIODE		
D1601	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D1602	407 208 9703	ZD UDZS-TE-175.6B
D1604	407 149 0807	DIODE 1SS355-TE-17
D1611	407 223 1003	ZENER DIODE 02DZ5.1Y(TPH3
D1653	407 149 0807	DIODE 1SS355-TE-17
D1675	407 223 1003	ZENER DIODE 02DZ5.1Y(TPH3

FILTER BOARD

610 297 3662 ASSY,PWB,FILTER MA8AA

CAPACITOR		
⚠ C601	404 081 4702	MT-POLYEST 0.22U M 275V
⚠ C602	404 081 4702	MT-POLYEST 0.22U M 275V
⚠ C603	404 073 5106	CERAMIC 470P K 250V
⚠ C604	404 073 5106	CERAMIC 470P K 250V
RESISTOR		
⚠ R600	401 238 1003	MT-GLAZE 120K JA 1/2W
⚠ R601	401 238 1003	MT-GLAZE 120K JA 1/2W
VARIABLE RESISTOR		
VA601	407 130 2902	VARISTOR ENC471D-14A
COIL		
⚠ L601	645 050 2231	LINE FILTER
MISCELLANEOUS		
⚠ F601	423 025 1201	FUSE 250V 8A
F601A	645 000 5077	HOLDER,FUSE
F601B	645 000 5077	HOLDER,FUSE

A/V BOARD

610 296 9351 ASSY,PWB,A/V MA8AA

TRANSISTOR		
Q2001	405 134 5905	TR 2SA1037AK-T146-R
Q2002	405 134 5905	TR 2SA1037AK-T146-R
Q2003	405 134 5905	TR 2SA1037AK-T146-R

Electrical Parts List

Key No.	Part No.	Description
Q2004	405 014 4509	TR 2SC2412K T146 R
Q2006	405 014 4509	TR 2SC2412K T146 R
Q5007	405 014 4509	TR 2SC2412K T146 R
Q5008	405 014 4509	TR 2SC2412K T146 R
Q5201	405 014 4509	TR 2SC2412K T146 R
Q5202	405 014 4509	TR 2SC2412K T146 R
Q5203	405 014 4509	TR 2SC2412K T146 R
Q5204	405 014 4509	TR 2SC2412K T146 R
Q7262	405 014 4509	TR 2SC2412K T146 R
INTEGRATED CIRCUIT		
IC101	409 470 2604	IC AD8183ARU
IC1031	409 461 7304	IC AD8057ART
IC1041	409 461 7304	IC AD8057ART
IC1051	409 461 7304	IC AD8057ART
IC3801	409 380 6303	IC HIN232CB
	409 273 3501	IC SP232ACT
IC3802	409 395 5902	IC TC7SH00FU-(TE85L)
IC3803	410 296 5700	IC TWM7000-151020
IC3804	410 275 5707	IC TWM7000-162020
	410 275 5806	IC TWM7000-162020
IC5001	409 051 2702	IC TC4052BF(EL)
IC5201	409 462 0304	IC 24LC21AT/SN
IC5202	409 051 2900	IC TC4053BF(EL)
IC5203	409 462 6009	IC AD8185ARU
IC5204	409 407 7900	IC EL4332CS
IC7141	409 484 2003	IC BA7078AF-E2
IC7221	410 343 7008	IC SN74AHCT1G14DBVR
IC7222	410 343 7008	IC SN74AHCT1G14DBVR
CAPACITOR		
C1004	403 164 0204	CERAMIC 0.1U Z 25V
C1006	403 164 0204	CERAMIC 0.1U Z 25V
C1007	403 304 2105	ELECT 47U M 6.3V
C1008	403 164 0204	CERAMIC 0.1U Z 25V
C1009	403 155 1609	CERAMIC 33P J 50V
C101	403 321 2607	ELECT 10U M 16V
C1011	403 164 0204	CERAMIC 0.1U Z 25V
C1012	403 155 1609	CERAMIC 33P J 50V
C1013	403 164 0204	CERAMIC 0.1U Z 25V
C1014	403 155 1609	CERAMIC 33P J 50V
C1016	403 164 0204	CERAMIC 0.1U Z 25V
C1017	403 304 2105	ELECT 47U M 6.3V
C1018	403 164 0204	CERAMIC 0.1U Z 25V
C102	403 321 2607	ELECT 10U M 16V
C1021	403 157 4202	CERAMIC 220P J 50V
C1022	403 283 6309	CERAMIC 1U Z 10V
C1023	403 304 2105	ELECT 47U M 6.3V
C1024	403 113 3805	CERAMIC 1000P K 50V
C1026	403 113 3805	CERAMIC 1000P K 50V
C1027	403 113 3805	CERAMIC 1000P K 50V
C1028	403 113 3805	CERAMIC 1000P K 50V
C103	403 321 2607	ELECT 10U M 16V
C104	403 164 0204	CERAMIC 0.1U Z 25V
C106	403 164 0204	CERAMIC 0.1U Z 25V
C107	403 164 0204	CERAMIC 0.1U Z 25V
C108	403 164 0204	CERAMIC 0.1U Z 25V
C109	403 149 9208	CERAMIC 0.01U Z 50V
C111	403 164 0204	CERAMIC 0.1U Z 25V
C112	403 280 1604	ELECT 220U M 16V
C113	403 164 0204	CERAMIC 0.1U Z 25V
C114	403 280 1604	ELECT 220U M 16V
C2007	403 149 9208	CERAMIC 0.01U Z 50V
C2008	403 304 3300	ELECT 47U M 16V
C2011	403 321 2607	ELECT 10U M 16V
C2012	403 321 2607	ELECT 10U M 16V
C2013	403 321 2607	ELECT 10U M 16V
C2014	403 164 0204	CERAMIC 0.1U Z 25V
C2016	403 321 2607	ELECT 10U M 16V
C2061	403 164 0204	CERAMIC 0.1U Z 25V
C2081	403 304 1801	ELECT 100U M 6.3V
C2082	403 304 1801	ELECT 100U M 6.3V
C2083	403 304 1801	ELECT 100U M 6.3V
C2086	403 283 6309	CERAMIC 1U Z 10V
C2087	403 283 6309	CERAMIC 1U Z 10V
C2088	403 229 3508	ELECT 100U M 16V
C2091	403 304 1801	ELECT 100U M 6.3V
C2092	403 304 1801	ELECT 100U M 6.3V
C3801	403 283 6309	CERAMIC 1U Z 10V
C3802	403 162 6208	ELECT 1U M 50V
C3803	403 162 6208	ELECT 1U M 50V
C3804	403 162 6208	ELECT 1U M 50V
C3807	403 283 6309	CERAMIC 1U Z 10V
C3808	403 283 6309	CERAMIC 1U Z 10V
C3809	403 283 6309	CERAMIC 1U Z 10V
C3811	403 283 6309	CERAMIC 1U Z 10V
C3812	403 162 6208	ELECT 1U M 50V
C3881	403 162 6208	ELECT 1U M 50V
C5003	403 323 8805	CERAMIC 2.2U Z 16V
C5004	403 323 8805	CERAMIC 2.2U Z 16V
C5006	403 323 8805	CERAMIC 2.2U Z 16V
C5007	403 323 8805	CERAMIC 2.2U Z 16V
C5008	403 323 8805	CERAMIC 2.2U Z 16V
C5009	403 323 8805	CERAMIC 2.2U Z 16V
C5011	403 323 1301	CERAMIC 0.47U Z 10V
C5012	403 323 1301	CERAMIC 0.47U Z 10V
C5013	403 304 3102	ELECT 22U M 16V
C5014	403 321 2607	ELECT 10U M 16V
C5016	403 323 1301	CERAMIC 0.47U Z 10V
C5204	403 164 0204	CERAMIC 0.1U Z 25V
C5207	403 283 6309	CERAMIC 1U Z 10V
C5208	403 283 6309	CERAMIC 1U Z 10V
C5209	403 304 2105	ELECT 47U M 6.3V
C5211	403 283 6309	CERAMIC 1U Z 10V
C5212	403 164 0204	CERAMIC 0.1U Z 25V
C5213	403 304 2105	ELECT 47U M 6.3V
C5214	403 149 9208	CERAMIC 0.01U Z 50V
C5216	403 283 6309	CERAMIC 1U Z 10V
C5217	403 164 0204	CERAMIC 0.1U Z 25V
C5218	403 304 2105	ELECT 47U M 6.3V
C5219	403 283 6309	CERAMIC 1U Z 10V
C5221	403 304 2105	ELECT 47U M 6.3V
C5226	403 157 3106	CERAMIC 56P J 50V
C5227	403 157 3106	CERAMIC 56P J 50V
C5228	403 157 3106	CERAMIC 56P J 50V
C5251	403 283 6309	CERAMIC 1U Z 10V
C5252	403 283 6309	CERAMIC 1U Z 10V
C5261	403 267 0606	NP-ELECT 4.7U M 16V
C5262	403 267 0606	NP-ELECT 4.7U M 16V
C5263	403 267 0606	NP-ELECT 4.7U M 16V
C5264	403 267 0606	NP-ELECT 4.7U M 16V
C5271	403 155 1500	CERAMIC 180P J 50V
C5272	403 155 1500	CERAMIC 180P J 50V
C5273	403 157 3809	CERAMIC 120P J 50V
C5274	403 157 3809	CERAMIC 120P J 50V
C5291	403 149 9208	CERAMIC 0.01U Z 50V
C7143	403 314 5905	CERAMIC 0.47U K 16V
C7144	403 314 5905	CERAMIC 0.47U K 16V
C7145	403 162 6208	ELECT 1U M 50V
C7146	403 314 5905	CERAMIC 0.47U K 16V
C7148	403 162 6604	ELECT 2.2U M 50V
C7149	403 162 6208	ELECT 1U M 50V
C7151	403 157 3601	CERAMIC 100P J 50V
C7152	403 164 0204	CERAMIC 0.1U Z 25V
C7153	403 304 1801	ELECT 100U M 6.3V

Electrical Parts List

Key No.	Part No.	Description
C7221	403 164 0204	CERAMIC 0.1U Z 25V
C7222	403 164 0204	CERAMIC 0.1U Z 25V
C7271	403 304 2105	ELECT 47U M 6.3V
C7272	403 283 6309	CERAMIC 1U Z 10V
RESISTOR		
RB3801	645 025 5380	R-NETWORK 10KX4 1/16W
	645 026 8014	R-NETWORK 10KX4 1/16W
RB5001	645 026 8021	R-NETWORK 100KX4 1/16W
RB5002	645 026 8021	R-NETWORK 100KX4 1/16W
R1001	401 260 4102	MT-GLAZE 75 JA 1/3W
R1002	401 260 4102	MT-GLAZE 75 JA 1/3W
R1003	401 260 4102	MT-GLAZE 75 JA 1/3W
R1004	401 105 0405	MT-GLAZE 100 JA 1/16W
R1008	401 105 0405	MT-GLAZE 100 JA 1/16W
R1009	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R101	401 105 2904	MT-GLAZE 22K JA 1/16W
R1012	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R1014	401 037 5608	MT-GLAZE 10K JA 1/10W
R1016	401 037 5608	MT-GLAZE 10K JA 1/10W
R1017	401 105 0405	MT-GLAZE 100 JA 1/16W
R1018	401 105 0405	MT-GLAZE 100 JA 1/16W
R1019	401 260 4102	MT-GLAZE 75 JA 1/3W
R102	401 105 8104	MT-GLAZE 56K JA 1/16W
R1021	401 260 4102	MT-GLAZE 75 JA 1/3W
R1022	401 260 4102	MT-GLAZE 75 JA 1/3W
R1024	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R1027	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R1028	401 105 0405	MT-GLAZE 100 JA 1/16W
R1029	401 105 0405	MT-GLAZE 100 JA 1/16W
R103	401 105 2904	MT-GLAZE 22K JA 1/16W
R1031	401 105 0405	MT-GLAZE 100 JA 1/16W
R1032	401 105 0405	MT-GLAZE 100 JA 1/16W
R1033	401 105 0405	MT-GLAZE 100 JA 1/16W
R1038	401 105 0504	MT-GLAZE 1K JA 1/16W
R104	401 105 8104	MT-GLAZE 56K JA 1/16W
R1041	401 105 0504	MT-GLAZE 1K JA 1/16W
R1043	401 105 0504	MT-GLAZE 1K JA 1/16W
R1046	401 038 6604	MT-GLAZE 470K JA 1/10W
R1047	401 038 6604	MT-GLAZE 470K JA 1/10W
R1048	401 038 6604	MT-GLAZE 470K JA 1/10W
R1049	401 038 6604	MT-GLAZE 470K JA 1/10W
R1051	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R1052	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R1053	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R1054	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R1056	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1057	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1058	401 105 0405	MT-GLAZE 100 JA 1/16W
R106	401 105 2904	MT-GLAZE 22K JA 1/16W
R1061	401 105 0405	MT-GLAZE 100 JA 1/16W
R1062	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R1063	401 105 0405	MT-GLAZE 100 JA 1/16W
R107	401 105 8104	MT-GLAZE 56K JA 1/16W
R108	401 105 0405	MT-GLAZE 100 JA 1/16W
R109	401 105 0405	MT-GLAZE 100 JA 1/16W
R111	401 105 0405	MT-GLAZE 100 JA 1/16W
R112	401 105 0405	MT-GLAZE 100 JA 1/16W
R113	401 105 0405	MT-GLAZE 100 JA 1/16W
R114	401 105 0405	MT-GLAZE 100 JA 1/16W
R122	401 105 0504	MT-GLAZE 1K JA 1/16W
R123	401 105 3901	MT-GLAZE 33 JA 1/16W
R124	401 105 3901	MT-GLAZE 33 JA 1/16W
R126	401 105 3901	MT-GLAZE 33 JA 1/16W
R2001	401 260 4102	MT-GLAZE 75 JA 1/3W
R2002	401 260 4102	MT-GLAZE 75 JA 1/3W
R2003	401 260 4102	MT-GLAZE 75 JA 1/3W
R2004	401 260 4102	MT-GLAZE 75 JA 1/3W

Key No.	Part No.	Description
R2005	401 260 4102	MT-GLAZE 75 JA 1/3W
R2006	401 037 5202	MT-GLAZE 100 JA 1/10W
R2008	401 105 0603	MT-GLAZE 10K JA 1/16W
R2009	401 105 5400	MT-GLAZE 47K JA 1/16W
R2011	401 105 0504	MT-GLAZE 1K JA 1/16W
R2012	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2013	401 105 2904	MT-GLAZE 22K JA 1/16W
R2014	401 105 5400	MT-GLAZE 47K JA 1/16W
R2016	401 105 0504	MT-GLAZE 1K JA 1/16W
R2017	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2018	401 105 2904	MT-GLAZE 22K JA 1/16W
R2019	401 105 5400	MT-GLAZE 47K JA 1/16W
R2021	401 105 0504	MT-GLAZE 1K JA 1/16W
R2022	401 105 2904	MT-GLAZE 22K JA 1/16W
R2023	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2024	401 105 5400	MT-GLAZE 47K JA 1/16W
R2026	401 105 5400	MT-GLAZE 47K JA 1/16W
R2027	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2028	401 105 5400	MT-GLAZE 47K JA 1/16W
R2029	401 105 0504	MT-GLAZE 1K JA 1/16W
R2031	401 105 5400	MT-GLAZE 47K JA 1/16W
R2032	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R2033	401 105 0504	MT-GLAZE 1K JA 1/16W
R2034	401 038 6604	MT-GLAZE 470K JA 1/10W
R2036	401 038 6604	MT-GLAZE 470K JA 1/10W
R2039	401 037 5202	MT-GLAZE 100 JA 1/10W
R2041	401 037 5202	MT-GLAZE 100 JA 1/10W
R2044	401 037 5202	MT-GLAZE 100 JA 1/10W
R2046	401 105 0603	MT-GLAZE 10K JA 1/16W
R2047	401 105 4007	MT-GLAZE 330 JA 1/16W
R2062	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R2070	401 037 5400	MT-GLAZE 1K JA 1/10W
R2074	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
R3801	401 105 0405	MT-GLAZE 100 JA 1/16W
R3802	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3803	401 105 5509	MT-GLAZE 470K JA 1/16W
R3804	401 105 0405	MT-GLAZE 100 JA 1/16W
R3806	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3807	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3814	401 105 0603	MT-GLAZE 10K JA 1/16W
R3816	401 105 0405	MT-GLAZE 100 JA 1/16W
R3817	401 105 0405	MT-GLAZE 100 JA 1/16W
R3818	401 105 0603	MT-GLAZE 10K JA 1/16W
R3819	401 105 4205	MT-GLAZE 33K JA 1/16W
R3821	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3822	401 105 0603	MT-GLAZE 10K JA 1/16W
R3823	401 105 0603	MT-GLAZE 10K JA 1/16W
R3824	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3826	401 105 0603	MT-GLAZE 10K JA 1/16W
R3827	401 105 0405	MT-GLAZE 100 JA 1/16W
R3828	401 105 0603	MT-GLAZE 10K JA 1/16W
R3829	401 105 0603	MT-GLAZE 10K JA 1/16W
R3831	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3832	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5009	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R5011	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R5012	401 105 0405	MT-GLAZE 100 JA 1/16W
R5013	401 105 0405	MT-GLAZE 100 JA 1/16W
R5014	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5016	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R5017	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R5018	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R5019	401 105 0405	MT-GLAZE 100 JA 1/16W
R5021	401 105 0405	MT-GLAZE 100 JA 1/16W
R5201	401 105 0405	MT-GLAZE 100 JA 1/16W
R5202	401 105 0405	MT-GLAZE 100 JA 1/16W
R5203	401 105 0405	MT-GLAZE 100 JA 1/16W

Key No.	Part No.	Description
R5204	401 037 5608	MT-GLAZE 10K JA 1/10W
R5206	401 105 0405	MT-GLAZE 100 JA 1/16W
R5207	401 105 0405	MT-GLAZE 100 JA 1/16W
R5208	401 105 0801	MT-GLAZE 12 JA 1/16W
R5209	401 105 0801	MT-GLAZE 12 JA 1/16W
R5211	401 105 0801	MT-GLAZE 12 JA 1/16W
R5212	401 105 2607	MT-GLAZE 22 JA 1/16W
R5213	401 105 2607	MT-GLAZE 22 JA 1/16W
R5215	401 105 2607	MT-GLAZE 22 JA 1/16W
R5216	401 105 0702	MT-GLAZE 100K JA 1/16W
R5217	401 105 0702	MT-GLAZE 100K JA 1/16W
R5218	401 105 0702	MT-GLAZE 100K JA 1/16W
R5219	401 105 1402	MT-GLAZE 150 JA 1/16W
R5221	401 258 9904	MT-GLAZE 10 JA 1/3W
R5223	401 105 1402	MT-GLAZE 150 JA 1/16W
R5224	401 105 1402	MT-GLAZE 150 JA 1/16W
R5226	401 105 0405	MT-GLAZE 100 JA 1/16W
R5227	401 105 0603	MT-GLAZE 10K JA 1/16W
R5228	401 105 0603	MT-GLAZE 10K JA 1/16W
R5229	401 105 0603	MT-GLAZE 10K JA 1/16W
R5231	401 105 0504	MT-GLAZE 1K JA 1/16W
R5233	401 105 0603	MT-GLAZE 10K JA 1/16W
R5271	401 105 0702	MT-GLAZE 100K JA 1/16W
R7147	401 105 8005	MT-GLAZE 1M JA 1/16W
R7148	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R7221	401 105 1303	MT-GLAZE 15 JA 1/16W
R7222	401 105 1303	MT-GLAZE 15 JA 1/16W
R7223	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R7224	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R7227	401 105 0405	MT-GLAZE 100 JA 1/16W
R7229	401 105 0405	MT-GLAZE 100 JA 1/16W
R7266	401 105 0603	MT-GLAZE 10K JA 1/16W
R7267	401 105 0603	MT-GLAZE 10K JA 1/16W
R7273	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R7293	401 105 0405	MT-GLAZE 100 JA 1/16W
COIL		
L1001	645 024 0669	FILTER,EMI 20PF
L1002	645 024 0669	FILTER,EMI 20PF
L1003	645 024 0669	FILTER,EMI 20PF
L1004	645 044 8843	FILTER,EMI 200MHZ
L1006	645 044 8843	FILTER,EMI 200MHZ
L1007	645 024 0669	FILTER,EMI 20PF
L1008	645 024 0669	FILTER,EMI 20PF
L1009	645 024 0669	FILTER,EMI 20PF
L1011	645 044 8843	FILTER,EMI 200MHZ
L1012	645 044 8843	FILTER,EMI 200MHZ
L1013	645 045 6183	FILTER,EMI 25MHZ
L1014	645 045 6183	FILTER,EMI 25MHZ
L1016	645 045 6183	FILTER,EMI 25MHZ
L1017	645 045 6183	FILTER,EMI 25MHZ
L1018	645 045 6183	FILTER,EMI 25MHZ
L1019	645 045 6183	FILTER,EMI 25MHZ
L102	401 035 4306	MT-GLAZE 10 JA 1/8W
L1021	645 045 6183	FILTER,EMI 25MHZ
L1022	645 045 6183	FILTER,EMI 25MHZ
L1023	645 045 6183	FILTER,EMI 25MHZ
L1024	645 045 6183	FILTER,EMI 25MHZ
L1026	645 045 6183	FILTER,EMI 25MHZ
L2001	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
L2002	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
L2003	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
L2004	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
L2006	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
L2007	645 044 8836	FILTER,EMI 100MHZ
L2008	645 044 8836	FILTER,EMI 100MHZ
L2009	645 044 8836	FILTER,EMI 100MHZ
L2011	645 044 8836	FILTER,EMI 100MHZ
L2012	645 044 8836	FILTER,EMI 100MHZ
L2013	645 045 6183	FILTER,EMI 25MHZ
L2014	645 045 6183	FILTER,EMI 25MHZ
L2015	645 045 6183	FILTER,EMI 25MHZ
L2018	645 045 6183	FILTER,EMI 25MHZ
L2019	645 045 6183	FILTER,EMI 25MHZ
L5201	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
L5202	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
DIODE		
D1001	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D1002	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D1003	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D1004	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D1006	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D1007	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D1008	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D1009	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D1011	407 201 2701	DIODE RB051L-40-TE25
D1012	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D1013	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D1014	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D1016	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D1017	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D1018	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D1019	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D1021	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D1022	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D1023	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D1024	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D1026	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D1027	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D1028	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D1029	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D1031	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D1032	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D1033	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D1034	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D1036	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D1037	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D1038	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D1039	407 223 0709	ZENER DIODE 02DZ20Y(TPH3)
D1041	407 223 0709	ZENER DIODE 02DZ20Y(TPH3)
D1042	407 223 0709	ZENER DIODE 02DZ20Y(TPH3)
D1043	407 223 0709	ZENER DIODE 02DZ20Y(TPH3)
D1044	407 223 0709	ZENER DIODE 02DZ20Y(TPH3)
D1046	407 223 0709	ZENER DIODE 02DZ20Y(TPH3)
D1047	407 223 0709	ZENER DIODE 02DZ20Y(TPH3)
D1048	407 223 0709	ZENER DIODE 02DZ20Y(TPH3)
D1049	407 223 0709	ZENER DIODE 02DZ20Y(TPH3)
D2001	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D2002	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D2003	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D2004	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D2006	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D2007	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D2008	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D2009	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D2011	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D2012	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D2013	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D2014	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D2015	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D2016	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D2017	407 223 0501	ZENER DIODE 02DZ12Y(TPH3)
D2023	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D2024	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D2026	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3

Key No.	Part No.	Description
D3801	407 149 0807	DIODE 1SS355-TE-17
D3802	407 149 0807	DIODE 1SS355-TE-17
D3803	407 223 1003	ZENER DIODE 02DZ5.1Y(TPH3
D5006	407 223 0600	ZENER DIODE 02DZ15Y(TPH3)
D5007	407 223 0600	ZENER DIODE 02DZ15Y(TPH3)
D5008	407 223 0600	ZENER DIODE 02DZ15Y(TPH3)
D5009	407 223 0600	ZENER DIODE 02DZ15Y(TPH3)
D5011	407 223 0600	ZENER DIODE 02DZ15Y(TPH3)
D5012	407 223 0600	ZENER DIODE 02DZ15Y(TPH3)
D5013	407 223 0600	ZENER DIODE 02DZ15Y(TPH3)
D5201	407 201 2701	DIODE RB051L-40-TE25
D5202	407 149 0807	DIODE 1SS355-TE-17
D5203	407 149 0807	DIODE 1SS355-TE-17
D5204	407 149 0807	DIODE 1SS355-TE-17
D5206	407 149 0807	DIODE 1SS355-TE-17
D7221	407 223 0907	ZENER DIODE 02DZ4.7Y(TPH3
D7222	407 223 0907	ZENER DIODE 02DZ4.7Y(TPH3
MISCELLANEOUS		
AU1001	645 034 8501	UNIT,REMOCON RECEIVER
IC2001	407 105 8700	PHOTO COUPLE PC113B
K10A	645 009 8093	SOCKET,D-SUB 15P
K10B	645 036 5201	SOCKET,BNC 5P
K10D	645 028 0382	SOCKET,USB 4P
K10E	645 000 2595	SOCKET,DIN 8P
K10F	645 048 4650	SOCKET,DVI 24P
K10FA	412 062 1909	SPECIAL SCREW
K10FB	412 062 1909	SPECIAL SCREW
K10G	645 000 2571	JACK,PHONE D8.0
K10H	645 000 2571	JACK,PHONE D8.0
K20A	645 041 3506	JACK,RCA-2
K20B	645 041 3537	JACK,RCA-3
K20D	610 010 8295	SOCKET,DIN 4P
K20G	645 036 1326	TERMINAL
K20H	645 000 2571	JACK,PHONE D8.0
SW1001	645 042 8197	SWITCH,PUSH 1P-1TX1
X3802	645 021 1218	OSC,CERAMIC 8.00MHZ
	645 037 5187	OSC,CERAMIC 8.00MHZ
X3803	645 021 1218	OSC,CERAMIC 8.00MHZ
	645 037 5187	OSC,CERAMIC 8.00MHZ

I/F BOARD

610 296 9368 ASSY,PWB,I/F MA8AA

Key No.	Part No.	Description
TRANSISTOR		
Q7021	405 014 4509	TR 2SC2412K T146 R
Q7022	405 014 4509	TR 2SC2412K T146 R
Q7023	405 014 4509	TR 2SC2412K T146 R
Q7024	405 014 4509	TR 2SC2412K T146 R
INTEGRATED CIRCUIT		
IC7001	409 523 7006	IC PQ05VY3H3ZP
IC7021	409 461 7809	IC PQ20WZ11
IC7041	409 461 7809	IC PQ20WZ11
CAPACITOR		
C7011	403 304 2402	ELECT 100U M 10V
C7012	403 164 0204	CERAMIC 0.1U Z 25V
C7013	403 164 0204	CERAMIC 0.1U Z 25V
C7014	403 304 1801	ELECT 100U M 6.3V
C7021	403 280 1604	ELECT 220U M 16V
C7022	403 280 1604	ELECT 220U M 16V
C7023	403 164 0204	CERAMIC 0.1U Z 25V
C7024	403 164 0204	CERAMIC 0.1U Z 25V
C7026	403 280 1604	ELECT 220U M 16V
C7041	403 280 1604	ELECT 220U M 16V
C7042	403 280 1604	ELECT 220U M 16V
C7043	403 164 0204	CERAMIC 0.1U Z 25V
C7044	403 164 0204	CERAMIC 0.1U Z 25V
C7046	403 280 1604	ELECT 220U M 16V
RESISTOR		
R7007	401 105 0405	MT-GLAZE 100 JA 1/16W
R7008	401 105 0405	MT-GLAZE 100 JA 1/16W
R7009	401 105 0405	MT-GLAZE 100 JA 1/16W
R7011	401 290 1508	MT-GLAZE 0.1 JE 1/2W
R7012	401 105 0405	MT-GLAZE 100 JA 1/16W
R7013	401 212 0503	MT-GLAZE 6.8K FA 1/16W
R7014	401 202 4108	MT-GLAZE 2K FA 1/16W
R7016	401 113 4907	MT-GLAZE 200 JA 1/16W
R7021	401 302 8006	MT-GLAZE 5.6 JE 1/2W
R7022	401 105 0603	MT-GLAZE 10K JA 1/16W
R7023	401 302 8105	MT-GLAZE 6.8 JE 1/2W
R7024	401 105 0603	MT-GLAZE 10K JA 1/16W
R7026	401 105 5400	MT-GLAZE 47K JA 1/16W
R7031	401 105 0405	MT-GLAZE 100 JA 1/16W
R7032	401 230 2503	MT-GLAZE 1K FA 1/16W
R7033	401 229 2804	MT-GLAZE 910 FA 1/16W
R7034	401 202 8205	MT-GLAZE 3K FA 1/16W
R7036	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R7037	401 105 5400	MT-GLAZE 47K JA 1/16W
R7038	401 105 0603	MT-GLAZE 10K JA 1/16W
R7041	401 105 0405	MT-GLAZE 100 JA 1/16W
R7042	401 230 2503	MT-GLAZE 1K FA 1/16W
R7043	401 202 4405	MT-GLAZE 750 FA 1/16W
R7044	401 202 8205	MT-GLAZE 3K FA 1/16W
R7046	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R7047	401 105 5400	MT-GLAZE 47K JA 1/16W
R7048	401 105 0603	MT-GLAZE 10K JA 1/16W
R7051	401 162 6501	MT-GLAZE 82 JA 1W
R7052	401 162 6501	MT-GLAZE 82 JA 1W
R7053	401 198 8005	MT-GLAZE 56 JA 1W
R7054	401 198 8005	MT-GLAZE 56 JA 1W
R7056	401 105 0603	MT-GLAZE 10K JA 1/16W
R7057	401 105 0603	MT-GLAZE 10K JA 1/16W
R7058	401 105 5400	MT-GLAZE 47K JA 1/16W
DIODE		
D7001	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D7002	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D7003	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D7004	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D7006	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D7007	407 223 1102	ZENER DIODE 02DZ6.2Y(TPH3
D7021	407 149 0807	DIODE 1SS355-TE-17
D7022	407 149 0807	DIODE 1SS355-TE-17

ACCESSORIES

645 015 3976		CABLE,FXAF
	610 234 0969	CABLE
	645 054 3098	CABLE,MOUSE MAC
	645 054 3104	CABLE,MOUSE MAC
	645 039 7196	CABLE,MOUSE MAC
	645 054 3111	CABLE,MOUSE PS/2
	645 054 3128	CABLE,MOUSE PS/2
	645 039 7202	CABLE,MOUSE PS/2
	645 054 3135	CABLE,MOUSE SRAL
	645 054 3142	CABLE,MOUSE SRAL
	645 039 7219	CABLE,MOUSE SRAL
	610 294 3351	COVER,DUST-MA8A

Electrical Parts List

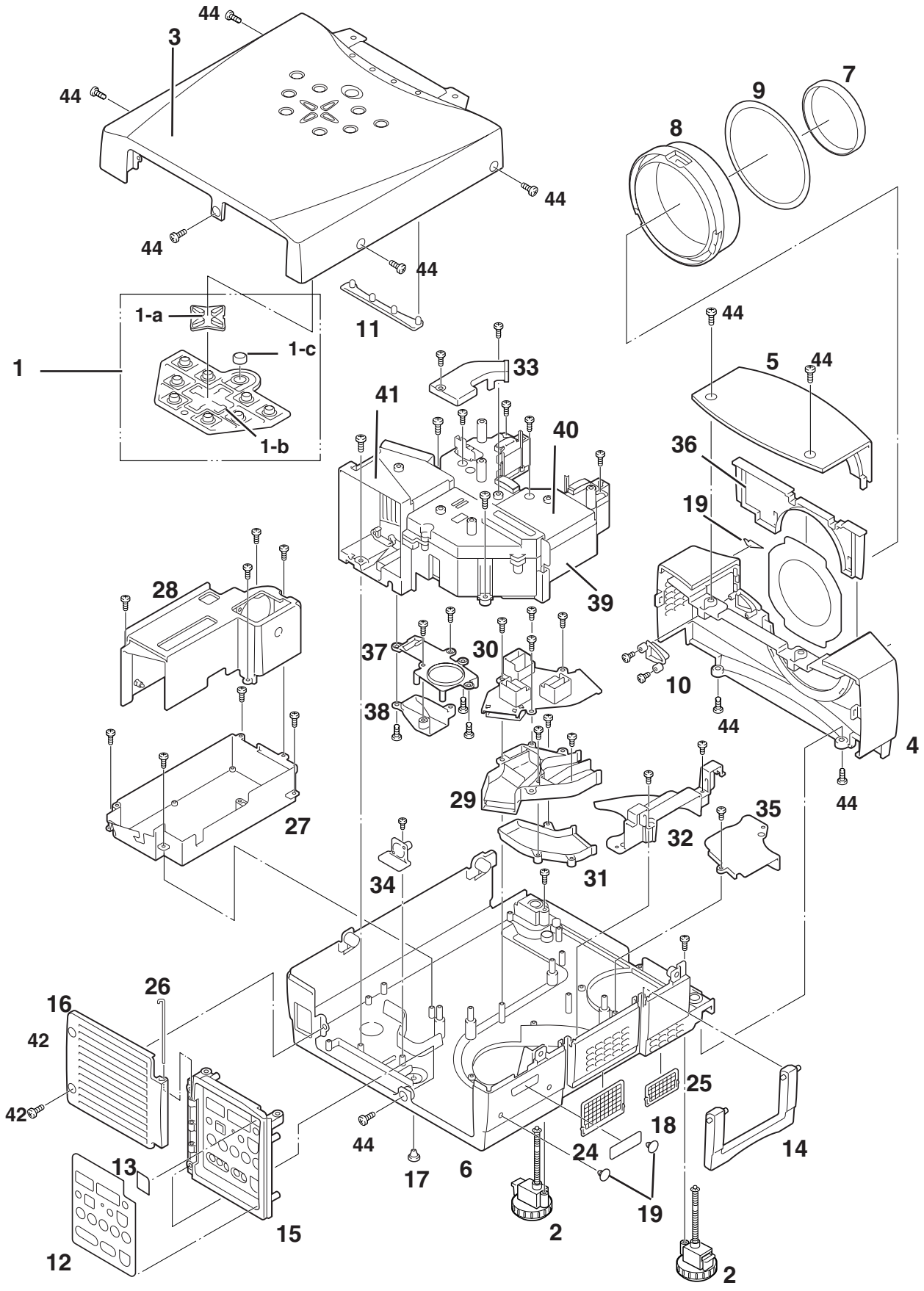
Key No.	Part No.	Description
	645 031 8207	ADAPTOR,MAC/IBM
	645 030 6624	CABLE,INTERFACE VGA
RC		
	645 055 1048	ASSY,REMOCON CXLY
	610 301 3725	RC-BATTERY LID-CXLY
TLP-4100U		
(Emglish)	610 301 2780	OWNER'S MANUAL-MA8SA
(French)	610 302 6343	OWNER'S MANUAL-MA8SA-F
(Spanish)	610 302 6350	OWNER'S MANUAL-MA8SA-E
⚠ AC CORD	645 054 1162	CORD,POWER-3.0MK
TLP-X4100E		
(Germany)	610 301 3046	OWNER'S MANUAL-PA8SA-D
(French)	610 301 3053	OWNER'S MANUAL-PA8SA-F
(Italy)	610 301 3060	OWNER'S MANUAL-PA8SA-I
(Spanish)	610 301 3077	OWNER'S MANUAL-PA8SA-E
(English)	610 302 1805	OWNER'S MANUAL-PA8SA
⚠ AC CORD	645 054 1155	CORD,POWER-3.0MK

Key No.	Part No.	Description

■ Mechanical Parts List

Note: Parts order must contain Chassis No., Part No., and Descriptions.

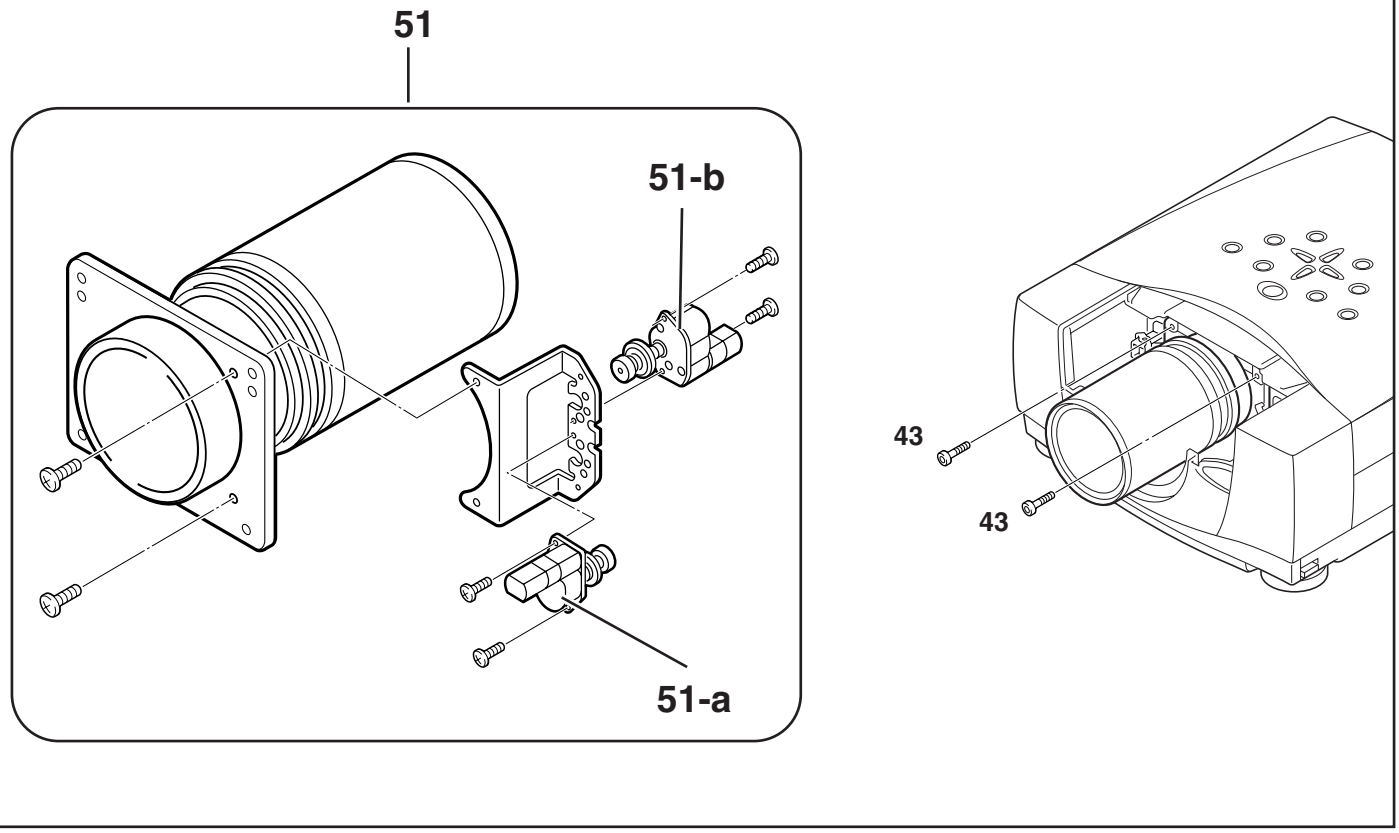
● CABINET PARTS

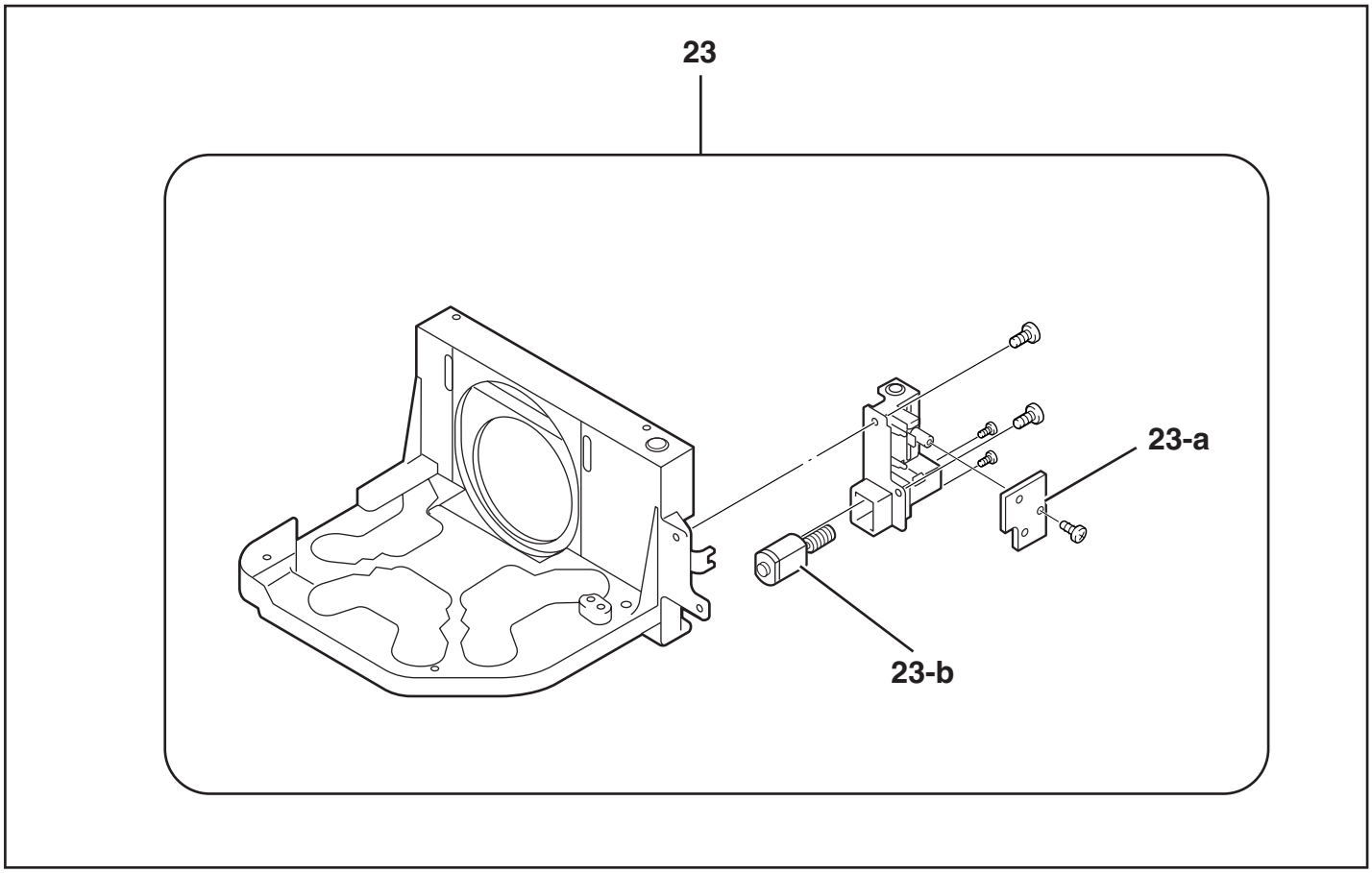


Mechanical Parts List

Key No.	Part No.	Description
CABINET PARTS		
1	610 293 5493	ASSY,BUTTON-MA8A
	(Including Key No. 1-a, b, c)	
1-a	610 293 5554	BUTTON-MA8A
1-b	610 294 2637	BUTTON U/D-MA8A
1-c	610 293 5875	CAP BUTTON-MA8A
2	610 293 5547	COMPL,STAND LEG-MA8A
3	610 301 3992	CABINET TOP-MA8SA
4	610 301 4005	CABINET FRONT A-MA8SA
5	610 302 4837	CABI-FRONT SERVICE-MA8SA
6	610 301 4012	CABINET BOTTOM-MA8SA
7	610 294 9360	CAP LENS-MA8A
8	610 301 4029	COVER CABINET FRONT-MA8SA
9	610 294 5225	DEC RING-MA8A
10	610 293 5899	DEC INLAY RC-MA8A
11	610 293 5912	DEC INLAY LED-MA8A
12	610 293 5929	DEC AV SHEET-MA8A
13	610 293 5936	DEC SHEET RC-MA8A
14	610 301 4036	HANDLE-MA8SA
15	610 301 4043	PANEL AV-MA8SA
16	610 301 4050	PANEL FAN-MA8SA
17	610 293 9972	SPACER LEG-MA8A
18	610 297 7929	SPACER COVER NWMG-MA8AA
19	610 297 7936	SPACER COVER SCREW NWMG-M
CHASSIS PARTS		
23	610 300 0183	COMPL,HOLDER LNS-MA8AA
	(Including Key No.21-a,b)	
23-a	610 294 6956	PWB,LNS SENSOR MA8A
23-b	645 048 6128	ASSY,MOTOR(MA8A)
24	610 293 5844	ASSY,PANEL NET A-MA8A
25	610 293 5851	ASSY,PANEL NET B-MA8A
26	610 293 6131	MOUNTING SHAFT-MA8A
27	610 293 6162	MOUNTING POW BTM-MA8A
28	610 299 5381	MOUNTING POW TOP-MA8AA
29	610 293 6186	MOUNTING DUCT BTM-MA8A
30	610 293 6193	MOUNTING DUCT TOP-MA8A
31	610 293 6209	MOUNTING DUCT B COVER-MA8
32	610 293 6216	MOUNTING DUCT FAN A-MA8A
33	610 293 6223	MOUNTING DUCT PBS-MA8A
34	610 293 6230	MOUNTING TEMP SW-MA8A
35	610 293 6650	MOUNTING DUCT FAN B-MA8A
36	610 293 9934	MTG COVER LNS-MA8A
37	610 297 4003	MOUNTING DUCT LMP TOP-MA8
38	610 297 4010	MOUNTING DUCT LMP BTM-MA8
39	610 299 2922	OPTICAL BASE BTM-MA8AA
40	610 293 4847	OPTICAL BASE TOP-MA8A
41	610 299 2939	OPTICAL LAMP-MA8AA

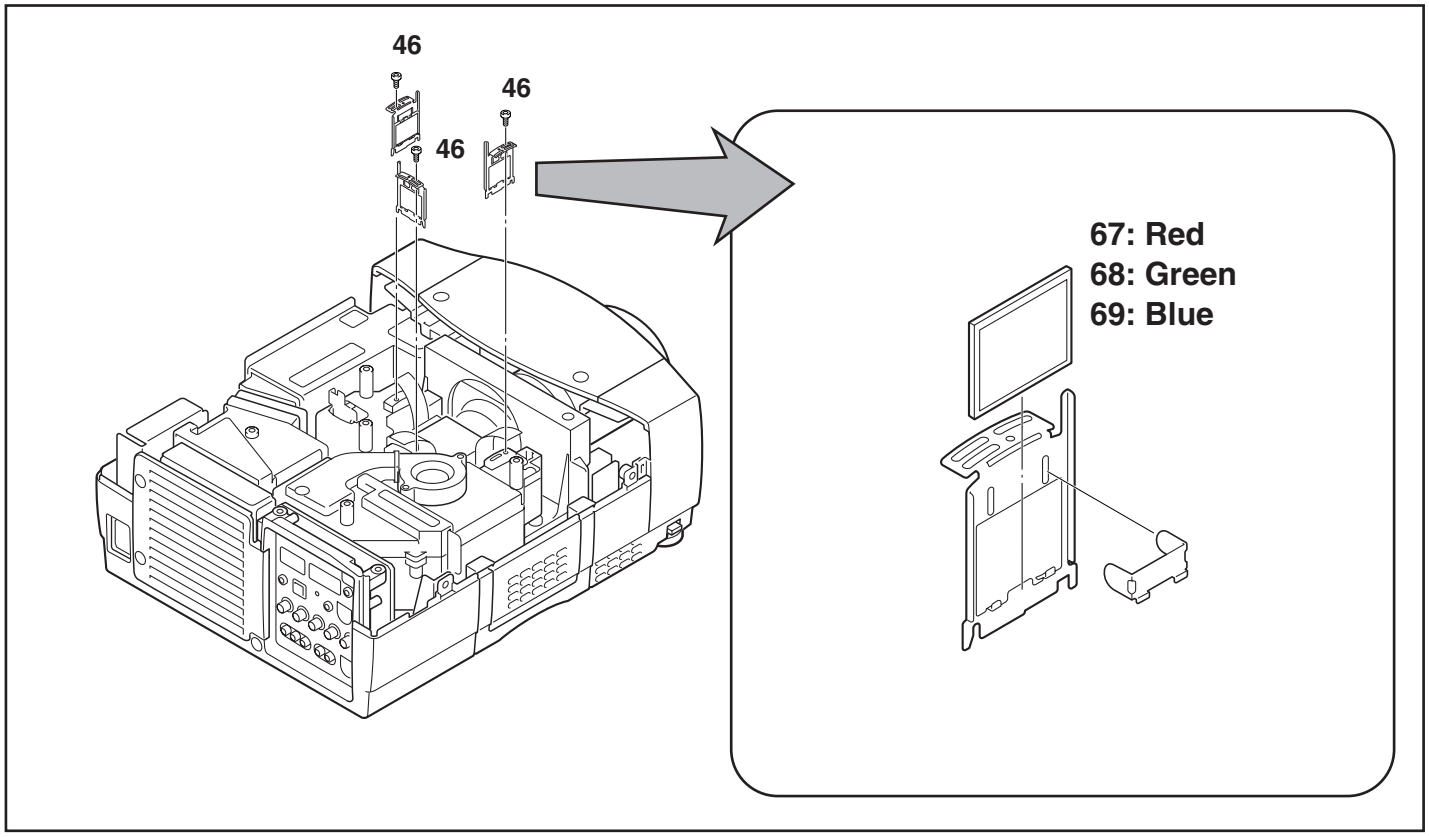
Key No.	Part No.	Description
SCREWS-CABINET-		
42	412 063 7900	SPECIAL SCREW(SILVER)
43	412 062 4009	SPECIAL SCREW
44	411 098 1402	SCR S-TPG BIN 4X10
SCREWS-CHASSIS-		
45	411 174 9308	BOLT HEX-SCT+SW+W 2.5X6
46	411 174 9407	BOLT HEX-SCT 2.5X6
47	411 030 7301	SCR BIN 2X6
OPTICAL PARTS		
51	645 047 2770	ASSY,LENS,PROJECTION
	(Including Key No. 51-a, b)	
51-a	645 020 7570	MOTOR,LENS DC 0.5W
51-b	645 023 0202	MOTOR,LENS DC 0.2W
52	645 041 3711	ASSY,PRISM(PBS)
53	610 299 2700	ASSY,LCD PNL/PRISM-MA8AA
	(Including Key No. 53-a, b, c, d)	
53-a	645 052 6800	POLARIZED GLASS(OUT/R)
53-c	645 054 8932	POLARIZED GLASS(OUT/G)
53-b	645 052 6824	POLARIZED GLASS(OUT/B)
53-d	645 055 0003	OPTICAL FILTER (WV-KC)
54	645 024 9037	LENS,CONDENSER
55	645 047 2831	LENS,INTEGRATOR(IN)
56	645 047 2848	LENS,INTEGRATOR(OUT)
57	645 047 2855	LENS,CONDENSER(IN)
58	645 047 2862	LENS,CONDENSER(OUT)
59	645 047 2879	LENS,CONDENSER(R)
60	645 047 2886	LENS,RELAY(IN)
61	645 047 2893	LENS,RELAY(OUT)
62	645 050 7502	LENS,CONDENSER (G)
63	645 044 2575	MIRROR(R)
64	645 047 7508	MIRROR(W-COLD)
65	645 047 7515	MIRROR(B)
66	645 053 8308	OPTICAL FILTER(UV CUT431)
67	645 052 6770	POLARIZED GLASS(IN/R)
68	645 054 8895	POLARIZED GLASS(IN/G)
69	645 052 6794	POLARIZED GLASS(IN/B)
70	645 050 7892	DICHROIC MIRROR (G)
71	645 047 2923	DICHROIC MIRROR (B)

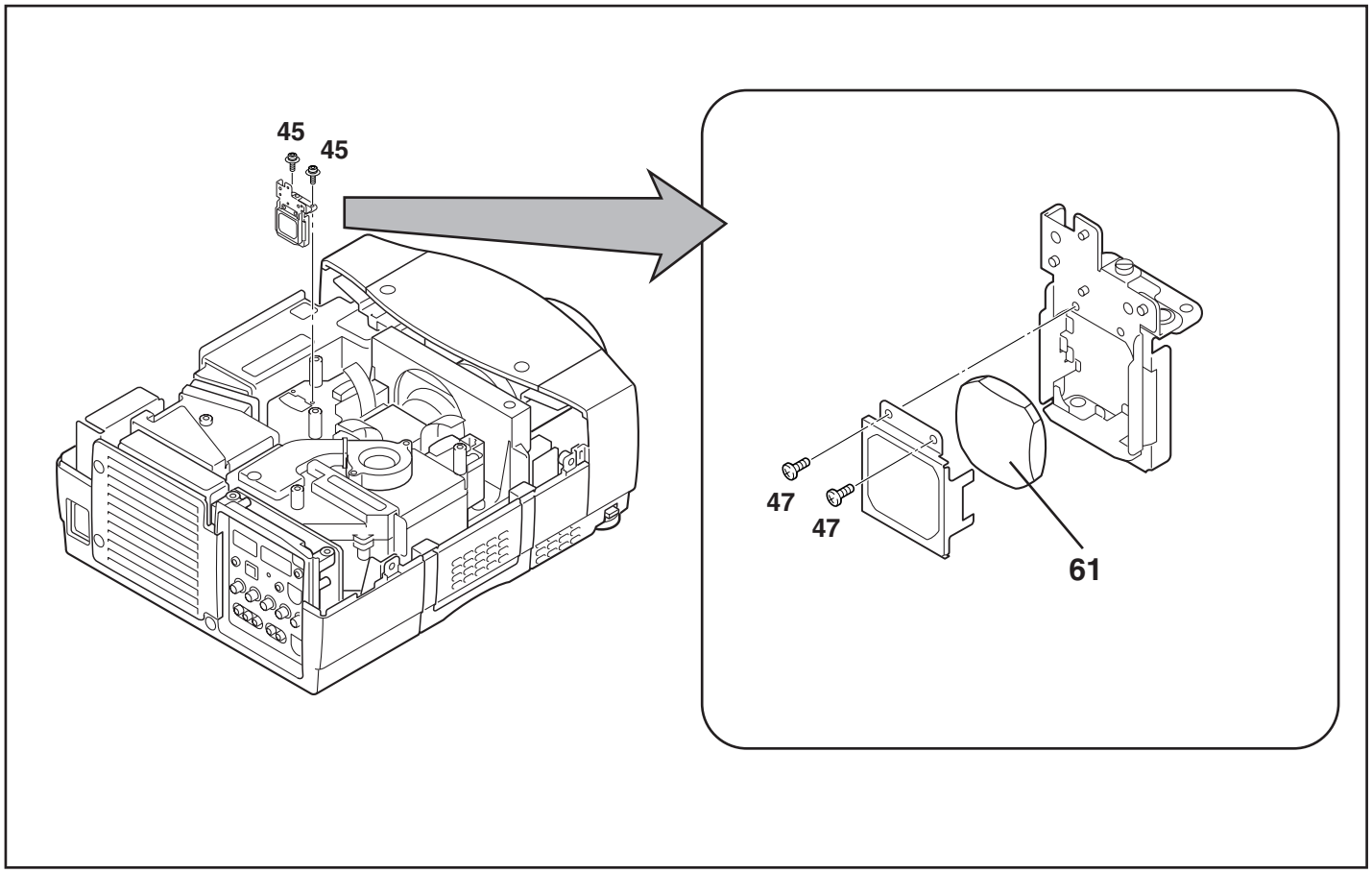

51
51-b
51-a
43
43

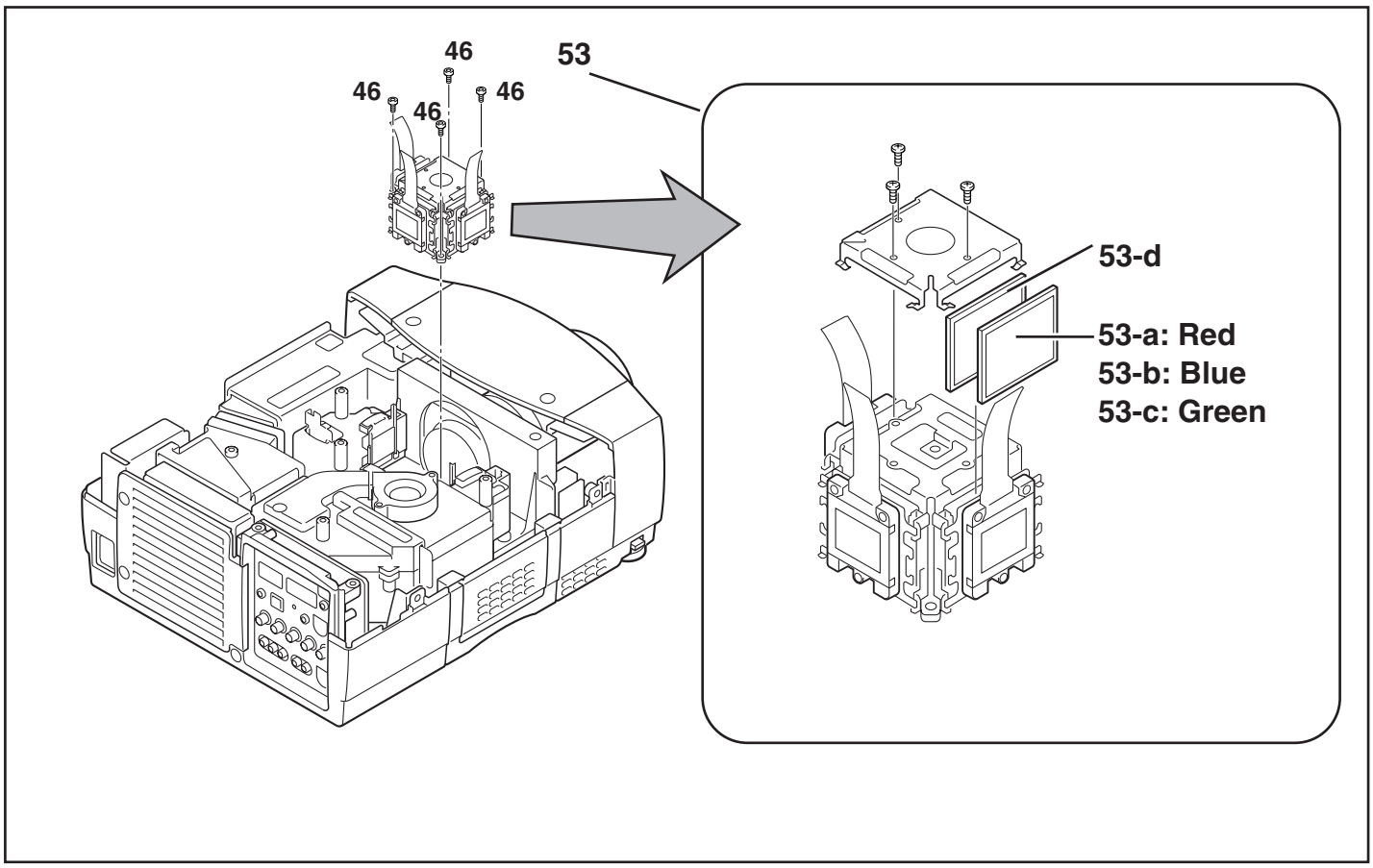

23
23-a
23-b

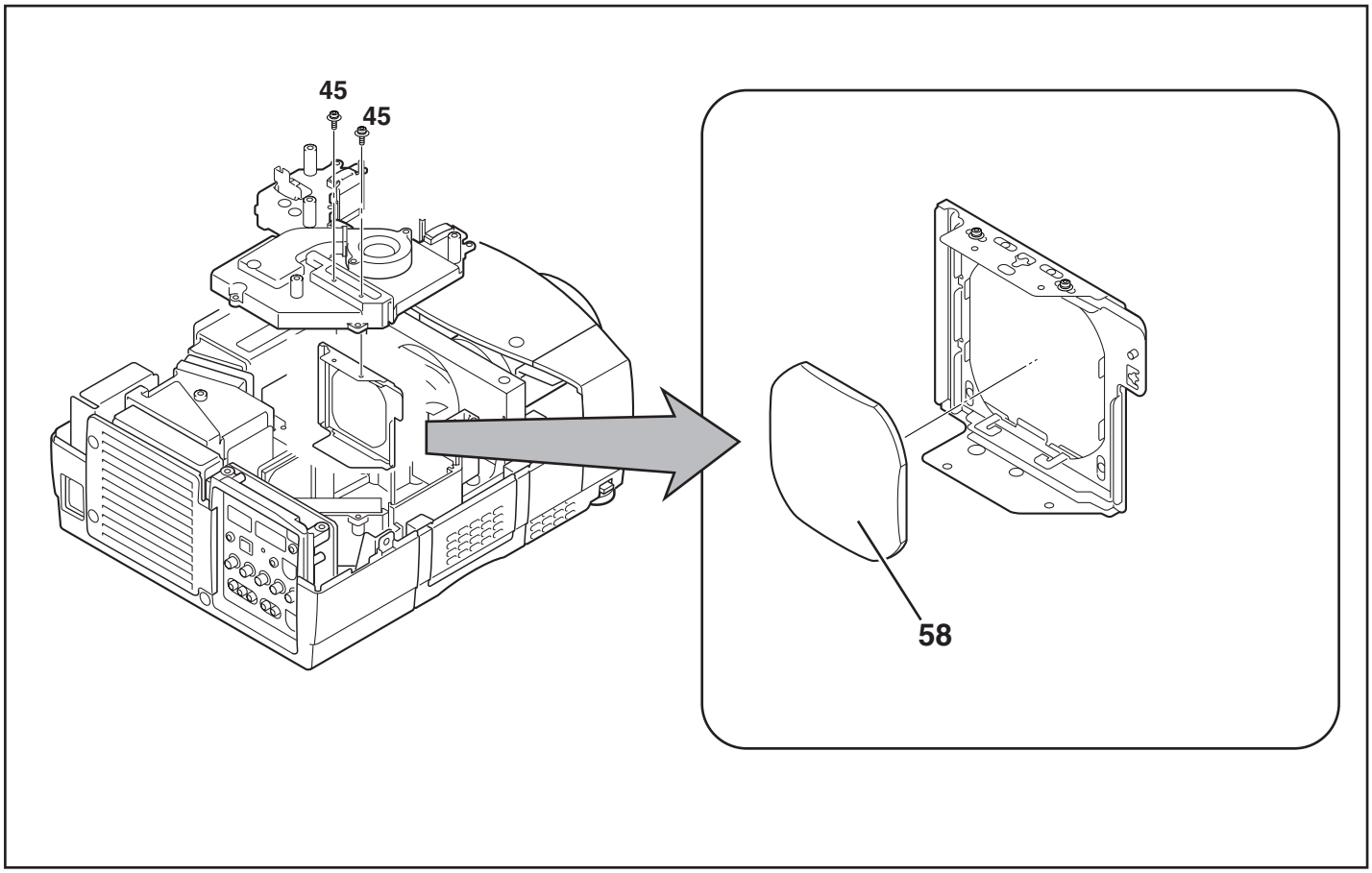
■ Optical Parts List

Note: Parts order must contain Chassis No., Part No., and Descriptions.

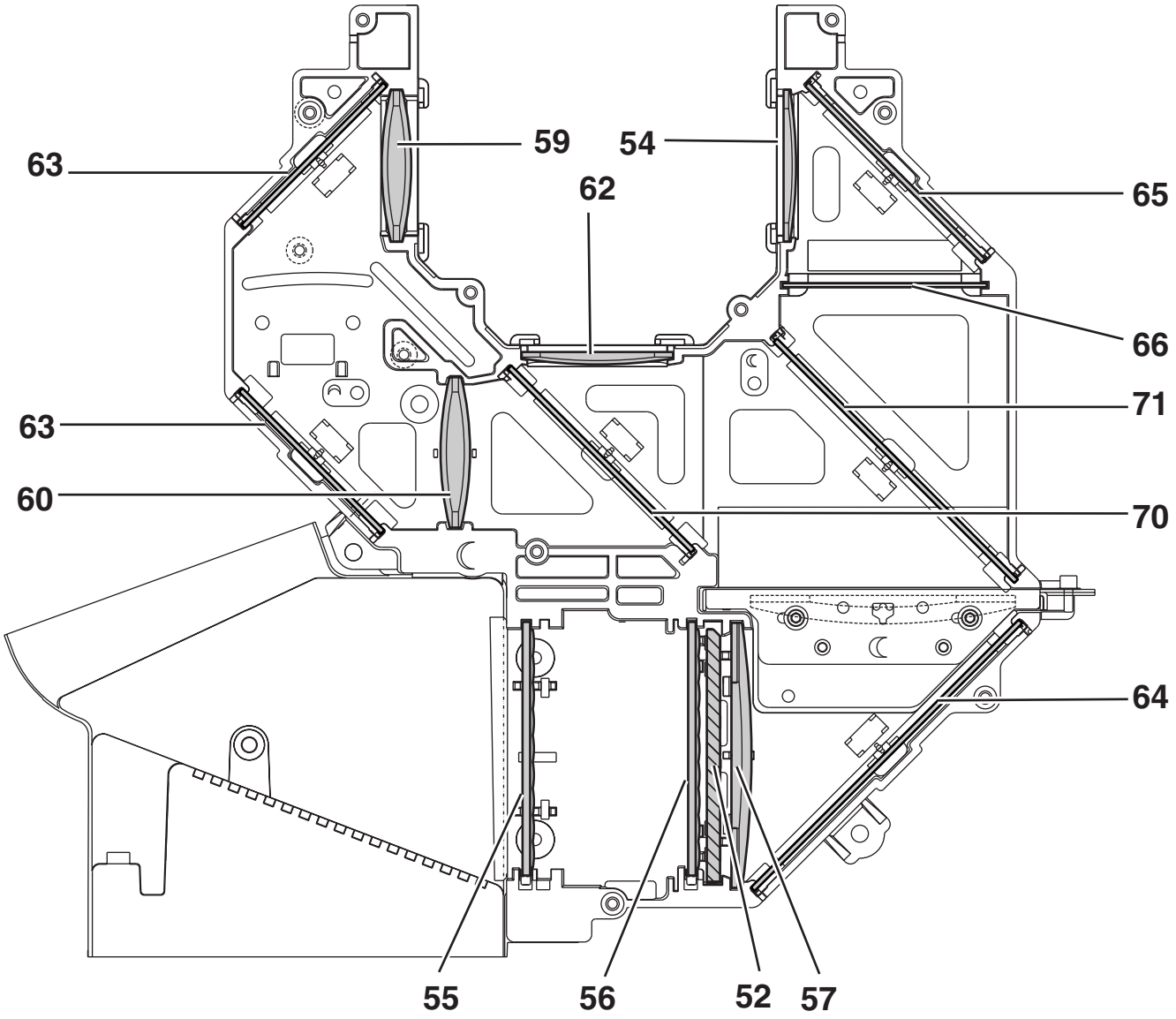





46
46
46
46
53
53-d
53-a: Red
53-b: Blue
53-c: Green


45
45
58

Optical Parts List



CAUTION:
Part must be placed in specified direction when replacing the optical parts. Please see "Optical Parts Disassemblies" for further instructions.

TOSHIBA

(MA8SA) 2002/Aug.

■ Diagrams & Drawings

Schematic Diagrams
Printed Wiring Board Drawings

Model **TLP-X4100U**
TLP-X4100E

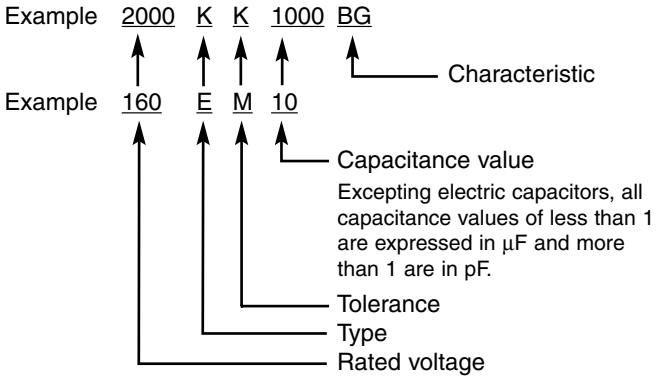
These schematic diagrams and printed wiring board drawings are part of the service manual original for models TLP-X4100U and TLP-X4100E. File with the service manual original.

Note:
All the information of part numbers and values indicated on these diagrams are at the beginning of production. To improve the performance, there may be some differences to the actual set. When you order the service parts, use service parts code mentioned on the parts list in this service manual.

■ Parts description and reading in schematic diagram

1. The parts specification of resistors, capacitors and coils are expressed in designated code. Please check the parts description by the following code table.
2. Some of transistors and diodes are indicated in mark for the substitution of parts name. Please check the parts name by the following code table.
3. Voltages and waveforms were taken with a video color bar signal(1Vp-p at 75 ohms terminated) and controls to normal.
4. Voltages were taken with a high-impedance digital voltmeter.

Capacitor Reading


Example 2000 K K 1000 BG
Characteristic
Example 160 E M 10
Capacitance value
Excepting electric capacitors, all capacitance values of less than 1 are expressed in µF and more than 1 are in pF.
Tolerance
Type
Rated voltage

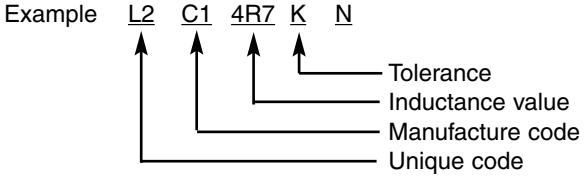
Material table

Mark	Material
E	Electrolytic
P	Electrolytic (non-polarized)
C	Ceramic (temperature compensation)
K	Ceramic
F	Polyester
N	Polypropylene
M	Metalized polypropylene
H	Metalized polypromylar
B	Ceramic (semiconductor)
G	Metalized polyestel
Y	Composite film
S	Styrol
T	Tantalum oxide solid electrolytic
U	Organic semiconductive electrolyte
D	Electric double layer electrolytic

Tolerance table

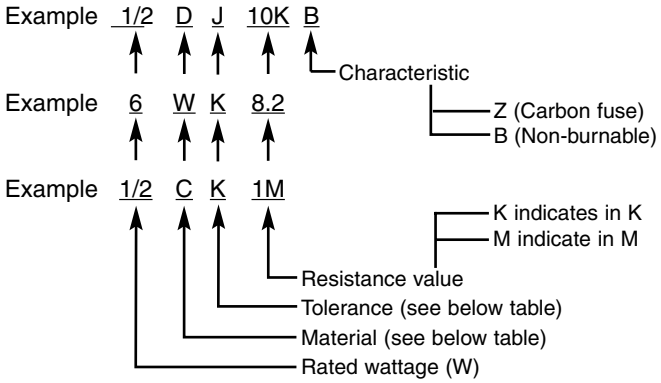
Mark	Tolerance
A	not specified
B	±0.1
C	±0.25
D	±0.5
F	±1
G	±2
E	±2.5
H	±3
J	±5
K	± 0
M	±20
N	±30
P	+100 -0
Q	+30 -10
T	+50 -10
U	+75 -10
V	+20 -10
W	+100 -10
X	+40 -20
Y	+150 -10
Z	+80 -20

Coil Reading



Mark	Tolerance (nH)	Mark	Tolerance (%)
C	±0.25	G	±2
D	±0.5	J	±5
S	±0.3	K	±10
A	±0.2	L	±15
		M	±20

Resistor Reading



Note: Resistor which is indicated with resistance value only are 1/6W carbon resistor. Resistor which is indicated with material, tolerance and value are 1/4W rated wattage.

Material table

Mark	Material
D	Carbon
N	Metal film
S	Oxide metal film
C	Solid
G	Metal glaze
W	Wire wounding or cement
H	Ceramic
F	Fusible

Tolerance table

Mark	Tolerance
A	±0.05
B	±0.1
C	±0.25
D	±0.5
F	±1
G	±2
J	±5
K	±10
M	±20
P	+5 -15
Z	used in 0 ohm

Diode/Transistor Type Reading

Diode

Mark	Type number
R	1S2076A,1S2473,1N4148
AA	1S2076A,1S2473,1SS133,1N4148

Transistor

(1) NPN type

Mark	Type number				
--	2SC536	2SC945A	2SC1815	2SC1740S	
AD	NF, NG	PA, QA	Y, GR	Q, R, S	
AE	NF, NG	PA, QA, RA	O, Y, GR	Q, R, S	

(2) PNP type

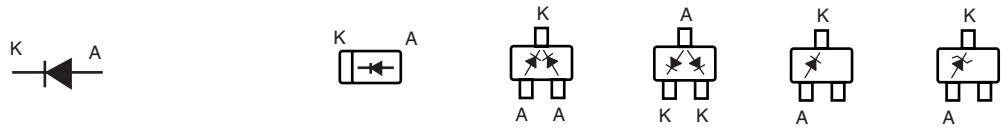
Mark	Type number				
--	2SA608	2SA564A	2SA1015	2SA933S	
AB	NF	R	Y, GR	R	
AC	NF	Q, R	O, Y, GR	Q, R	

(3) Chip type

Mark	Type number				
--	2SA1179/N	2SA1037K	2SA1037AK	2SC2812/N	2SC2412K
AJ	M6, M7	R, S	R, S		
AH				L6, L7	R, S

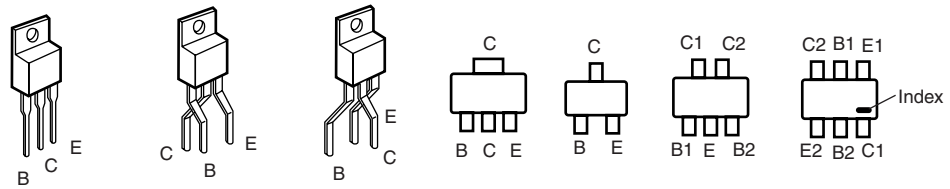
■ Pin description of diode, transistor and IC

● Diode



K: Cathode
A: Anode

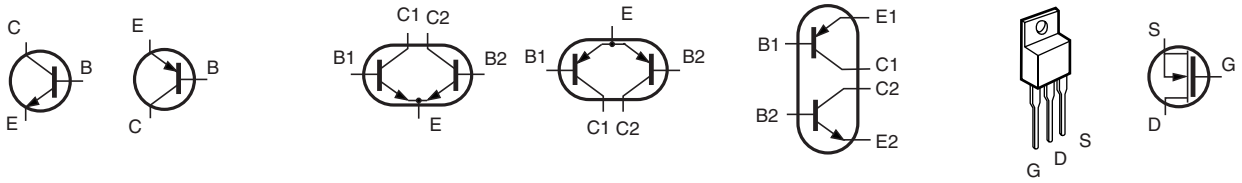
● Transistor/FET



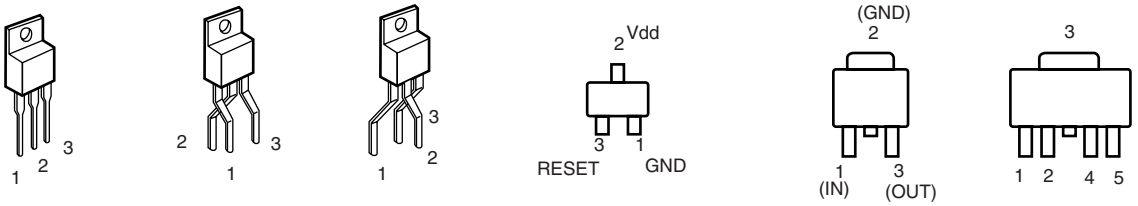
C: Collector
B: Base
E: Emitter

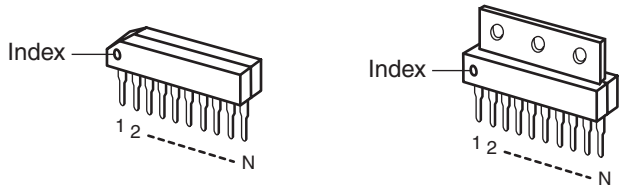
D: Drain
G: Gate
S: Source

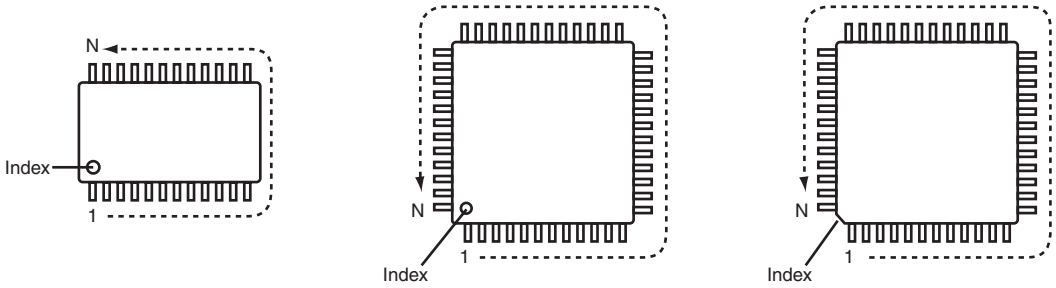
FET

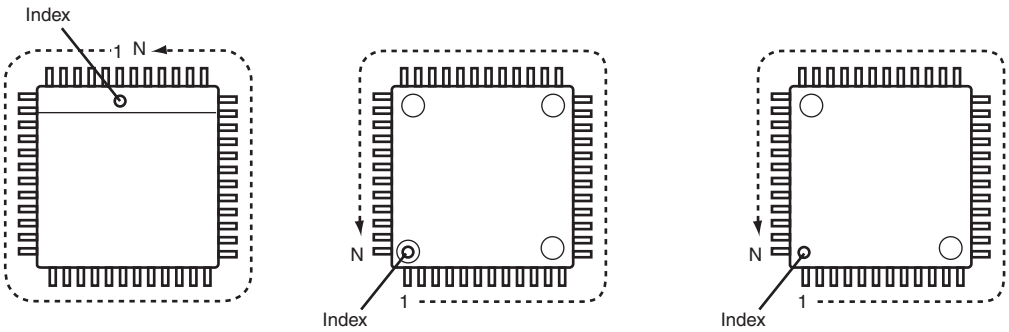


● IC

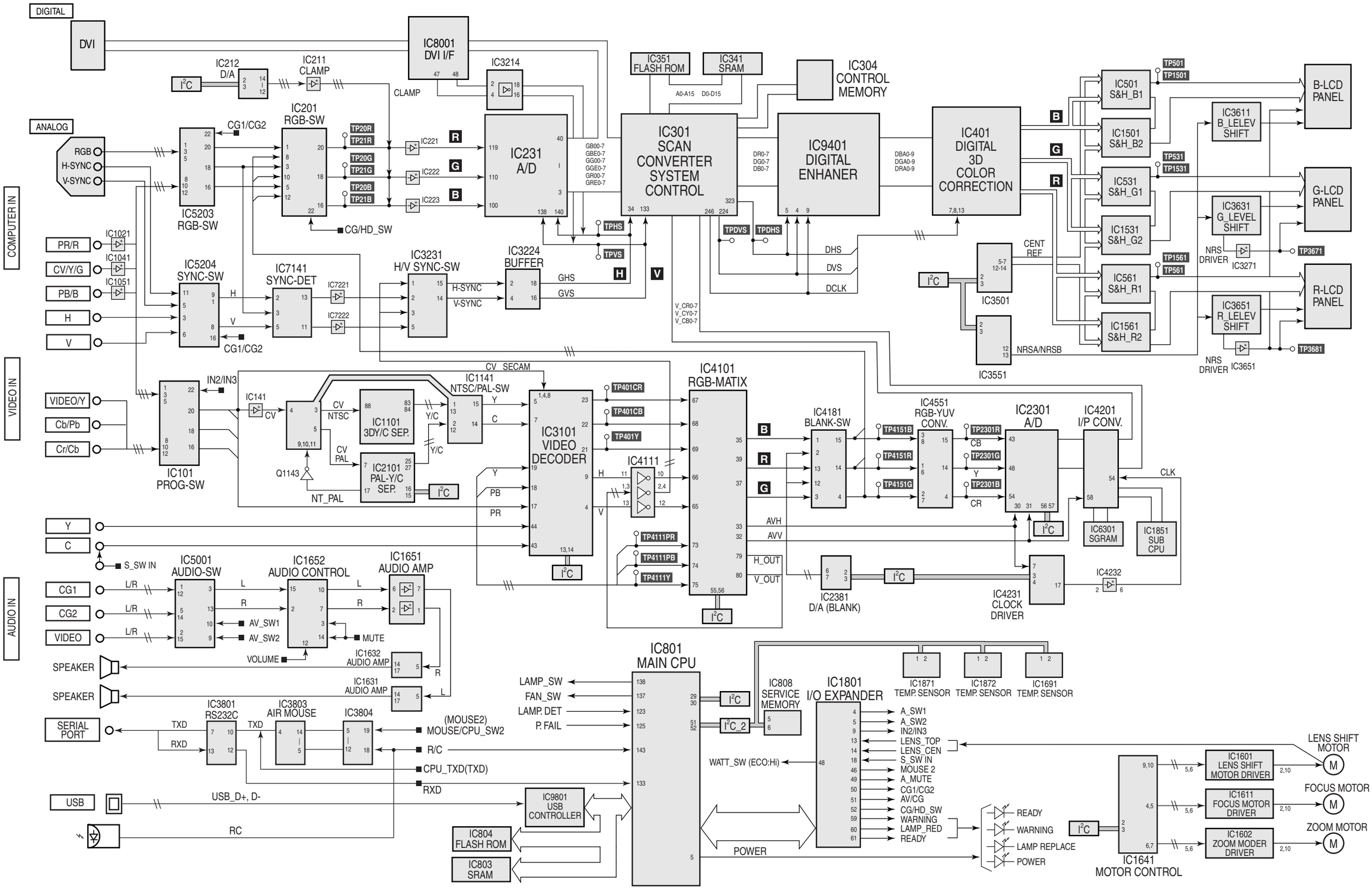




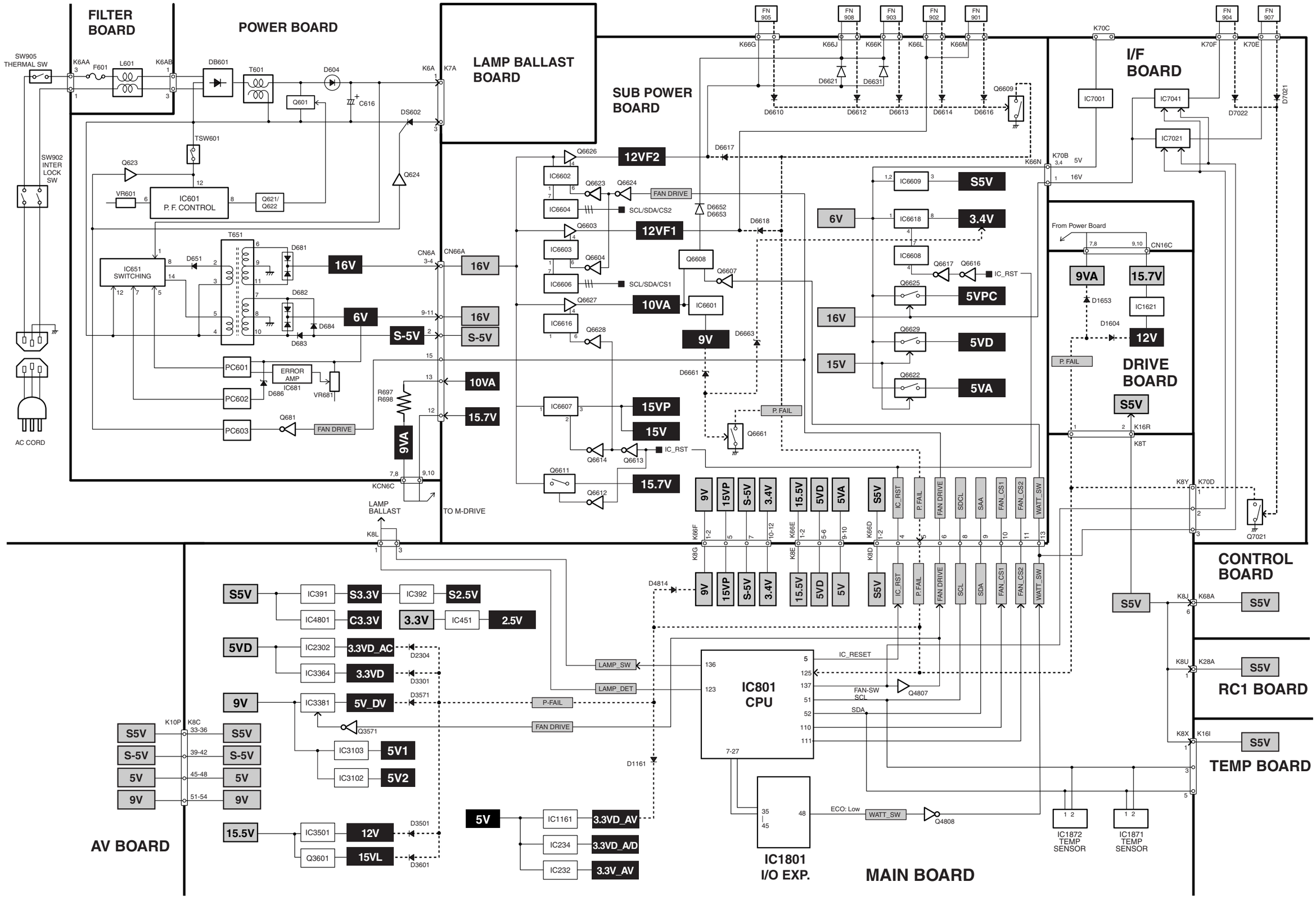




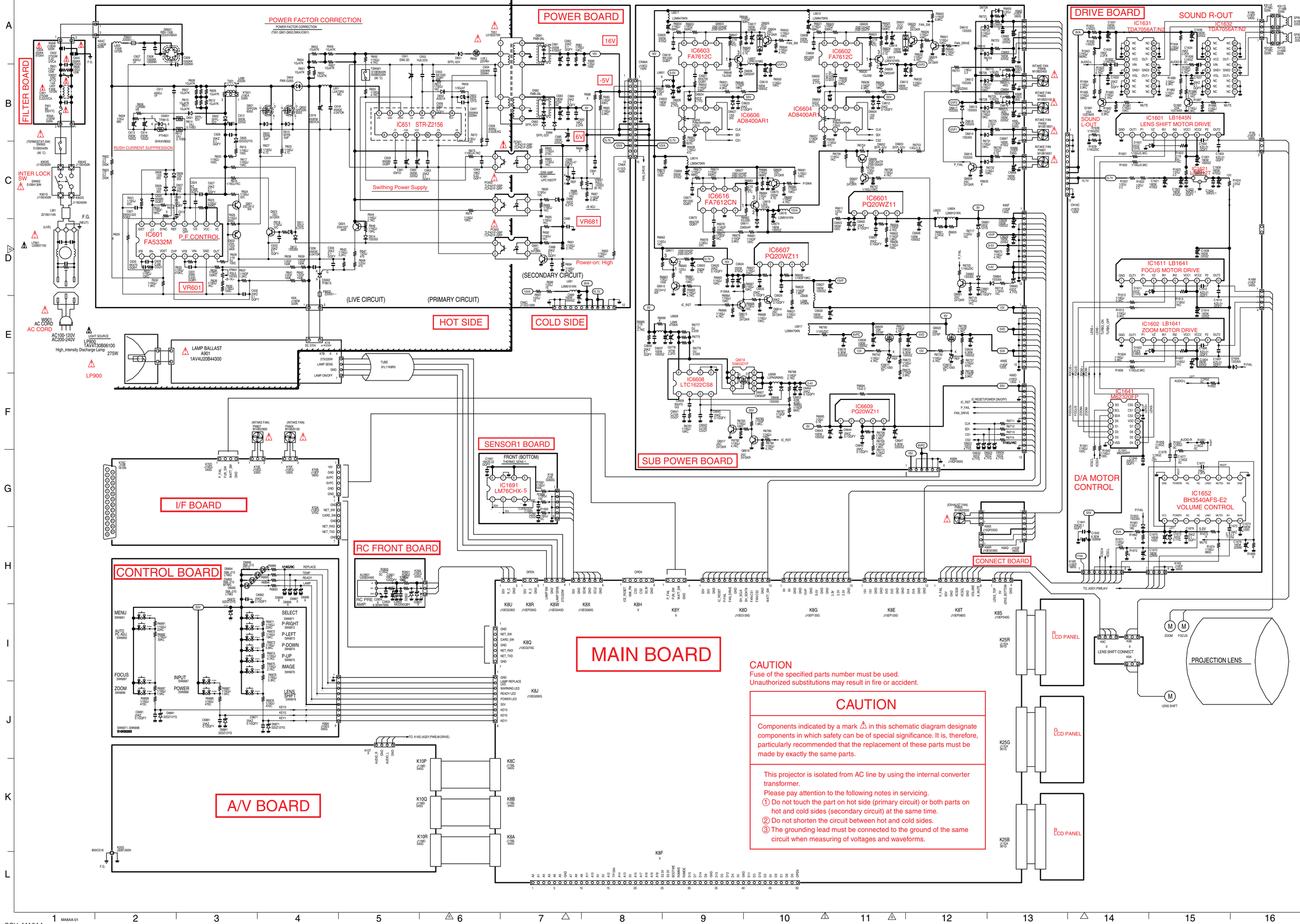
■ Circuit Block Diagram



■ Power Supply Lines



■ Schematic Diagrams



INPUT-1

INPUT-2

INPUT-3

IC5202
TC4053BF(EL)

IC5201
24LC21AT/SN

I²C-SW

IC5203
AD8185ARU

RGB-SW

IC1031
AD8057ART

IC1041
AD8057ART

IC1051
AD8057ART

IC5204
EL4532C

SYNC-SW

IC7141
BA7078AF-E2

SYNC-DET.

DIGITAL-INPUT

IC7221
SN74AHCT1G14DBVR

IC722
SN74AHCT1G14DBVR

MAIN BOARD "K8C"

MAIN BOARD "K8D"

MAIN BOARD "K8A"

MAIN BOARD "K8Q"

MAIN BOARD "K8 Y"

I/F BOARD

IC7021
PQ20WZ11P

IC7041
PQ20WZ11P

IC7001
PQ05VY3H

5V SW.

SUB POWER BOARD "K 66N"

M DRIVE BOARD "K16S"

FN907

FN904

IC101
AD8183ARU

Pb, Pr/Cb, Cr-SW

IC5001
TC4052BF(EL)

AUDIO-SW

RS232C DRIVER

IC3801
HIN232CB

IC3802
TC7SH00FU

IC3804
TWM7000-16020

IC3803

TWM7000-151020

AIR MOUSE CONTROLLER-2

AIR MOUSE CONTROLLER-1

AV BOARD

MA8AA-02

A6

SCH_MA8AA

IC1161
BA033FP-E2

IC1101
UPD64082GF-3BA
NTSC
3D Y/C
SEPARATOR

IC1131
MSM54V16258BSL-40TS-K
FIELD MEMORY

IC1141
TC4053BF(EL)
NTSC/PAL-SW

IC2101
TC90A69F
PAL-Y/C
SEPARATOR

IC3102
BA05FP-E2

IC3101
TB1274AF
VIDEO
DECODER

IC3103
BA05FP-E2

IC141
MM1031XM

IC4101
RGB-MATRIX

IC4111
IC4101
RGB-MATRIX

VIDEO
C
Y
S-Y
S-C
K8A/K8M

MAIN BOARD-1/6

IC8003
TC4053BF(EL)

IC8004
24C01CT/SN

IC8001
SII161ACT100
DVI I/F

K8C

IC301
SCAN
CONVERTER

(TO IC3214)

IC234
BA033FP-E2
UPC2933T-E1

IC232
BA033FP-E2
UPC2933T-E1

IC233
TC4W53FU(TE12L)

RGB-SW

IC201
AD8183ARU

K8B
CG-RGB

IC4181
AV-RGB

IC231
AD9886KS140
A/D

IC301
SCAN
CONVERTER

IC212
M62393FP

IC211 LT1260CS

D/A

IC213
SN74AHCT1G

CLAMP

TPGCLK

TPVS

TPHS

MAIN BOARD-2/6

MA8AA-04

A8

SCH_MA8AA

IC4201
T8F01HF
I/P
CONVERTER

IC2301
A/D

IC4501
LC24085BT-UG4

CLOCK
DRIVER

IC4231
ICS1523M-ER

IC4232
TC7WH125FD

IC4101
CXA2101AQ
RGB-MATRIX

IC1301
VIDEO
DECODER

IC3231

K8A/K8M

IC4111
MC74AC04DT
TC74AC04FT
SN74LV04APWR

BLANKING

IC4181
TC4053BF(EL)

IC2301
AVH. AVV

IC4122
MCH6602-TL

IC4121
MCH6602-TL

IC201
CG/AV
RGB-SW

IC4551
TA1287F

RGB/YUV
CONVERTER

IC2381
M62393FP

D/A

IC6301
MS82V16520-8AGA
SGRAM

IC301
SCAN
CONVERTER

IC1851
LC863316A-5W09
SUB
CPU

IC4261
MN1382
-Q-TX

IC2303
BA033FP-E2
UPC2933T-E1

IC4102

IC2303
BA033FP-E2
UPC2933T-E1

IC2301
AD9883KST-100
A/D

IC4201
I/P
CONVERTER

MAIN BOARD-3/6

IC391
BA033FP-E2
UPC2933T-E1

IC392
SI-3025LS-TL

IC4201
I/P
CONVERTER

CONTROL
MEMORY

IC304
24LC16BT/SN-T

IC306
TC7S32FU-TE85L

IC341
IDT71V016S15PHTR
IS61LV6416-15T

SRAM

IC351
MBM29LV800TA80N

FLASH
ROM

IC361
ICS512MT

IC362
ICS512MT

CLOCK

IC3211
TC74VCX16244FT

IC3212
TC74VCX16244FT

IC3213
TC74VCX16244FT

IC3214
TC74LCX541FT

IC4111

K8D
K8N

H/V-SYNC
SW

IC3231
TC74HC4053AFT(EL)

IC3224
TC74LCX541FT

IC3221
TC74LCX74FT-(EL)

IC231
A/D
IC8001
DVI I/F

IC301
PW365-10U
SCAN
CONVERTER
&
SYSTEM
CONTROL

IC3401
DIGITAL
ENHANCER

MAIN BOARD-4/6

MA8AA-06

A10

SCH_MA8AA

IC301
SCAN
CONVERTER

IC9401
LC24085BT-UG4
DIGITAL
ENHANCER

IC451
SI-3025LS-TL

IC401
L3E07050
DIGITAL 3D
COLOR
CORRECTION

B-D/A&S/H

IC501
L3E06070D0A
S&H_B1

IC1501
L3E06070D0A
S&H_B2

G-D/A&S/H

IC531
L3E06070D0A
S&H_G1

IC1531
L3E06070D0A
S&H_G2

R-D/A&S/H

IC561
L3E06070D0A
S&H_R1

IC1561
L3E06070D0A
S&H_R2

NRS
DRIVER

IC3681
LM7171

B-LCD
PANEL

B-LEVEL SHIFT
IC3611
L3E01031FA0AM

G-LCD
PANEL

G-LEVEL SHIFT
IC3631
L3E01031FA0AM

IC3681
LT1206CS8

NRS
DRIVER

R-LCD
PANEL

R-LEVEL SHIFT
IC3651
L3E01031FD0AM

IC3381
LM88MS05TLP

IC3501
M62399FP

IC3551
M62399FP

IC3501
BA12FPP

MAIN BOARD-5/6

CONTROL BOARD "K68A"

RC BOARD "K28A"

LAMP BALLAST "K7B"

TEMP. BAORD "K16I"

LENS SHIFT CONNECT BOARD "K9C"

M-DRIVE BOARD "K16R"

SUB POWER BOARD "K66F"

SUB POWER BOARD "K66E"

SUB POWER BOARD "K66D"

AV BOARD "K10Q"

AV BOARD "K10R"

AV BOARD "K10P"

I/F BOARD "K70D"

I/F BOARD "K70A"

IC1801
M66500FP
I/O EXPANDER

Mode	LED On
WARNING	L
LAMP REP.	L
READY	L

IC4801
BA033FP-E2
UPC2933T-E1

IC804
M5M51008BFPP-70L
M5M51008BFP-70LL
M5M51008CFP-70HI

SRAM

IC803
M5M29JB160AVP

FLASH ROM

IC801
HD64F7045F28
MAIN CPU

IC806
MPA4115AJ

IC802
MN1382-Q-TX

IC1802
TC74ACT138FT-EL

IC808
24LC16BT/SN-T

SERVICE MEMORY

TEMP. SENSOR
IC1871
LM76CHMX-5

TEMP. SENSOR
IC1872
LM76CHMX-5

IC9822
TC7W02FUP

IC9801
ML60851CTB
USB CONTROLLER

IC9821
MC74HCT244AP

IC811
TC7S04F-TE85L

IC812
HD74LVC244AT

IC813
TC7S08F-TE85L

IC1841
MC74HCT244ADT
HD74HCT244TV

IC814
TC74LCX541FT

IC815
TC74ACT541FT

IC815
TC74ACT541FT

MAIN BOARD-6/6

MA8AA-08

A12

SCH_MA8AA

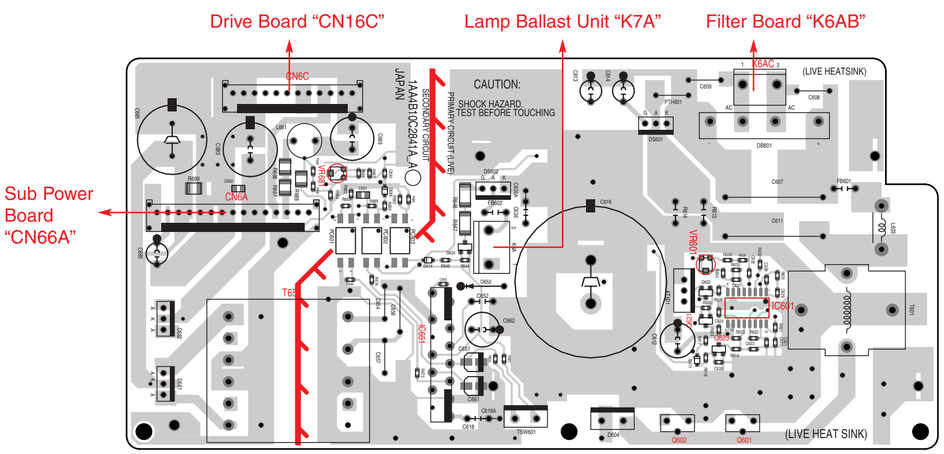
■ Printed Wiring Board Diagrams

⚠ CAUTION

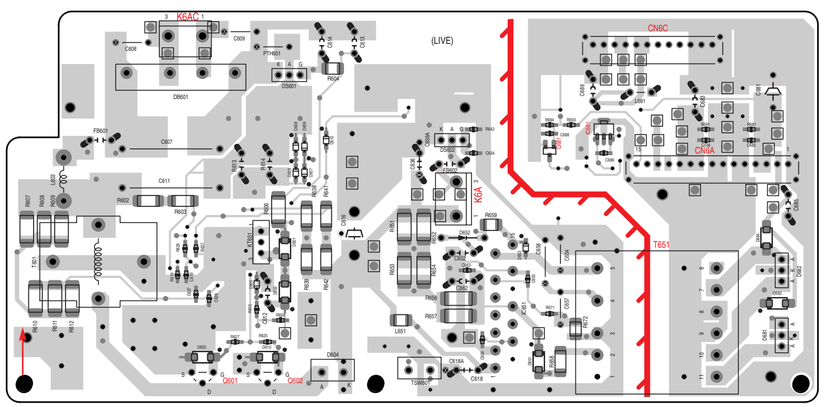
This projector is isolated from AC line by using the internal converter transformer.
Please pay attention to the following notes in servicing

1. Do not touch the part on hot side (primary circuit) or both parts on hot and cold sides (secondary circuit) at the same time.
2. Do not shorten the circuit between hot and cold sides.
3. The grounding lead must be connected to the ground of the same circuit when measuring of voltages and waveforms.

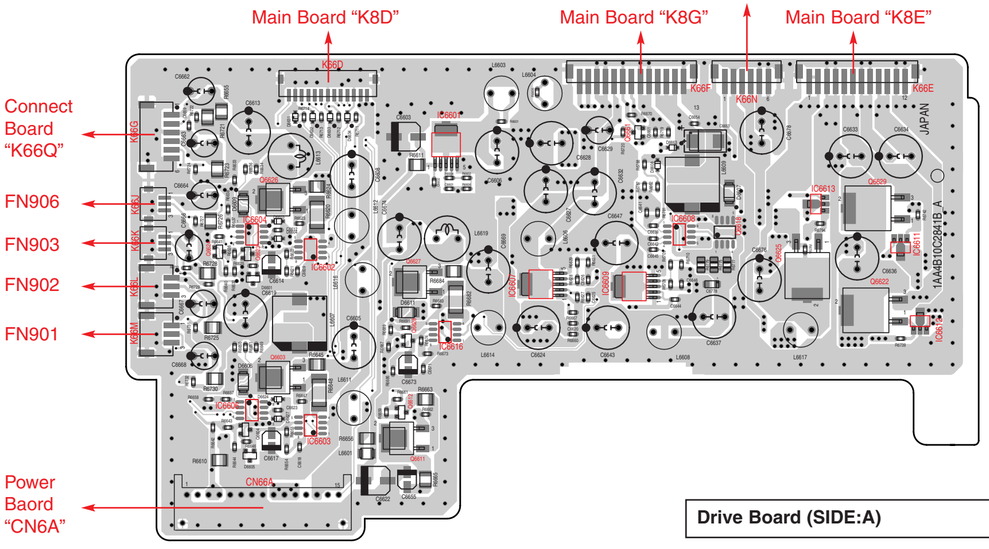
Power Board (SIDE:A)



Power Board (SIDE:B)

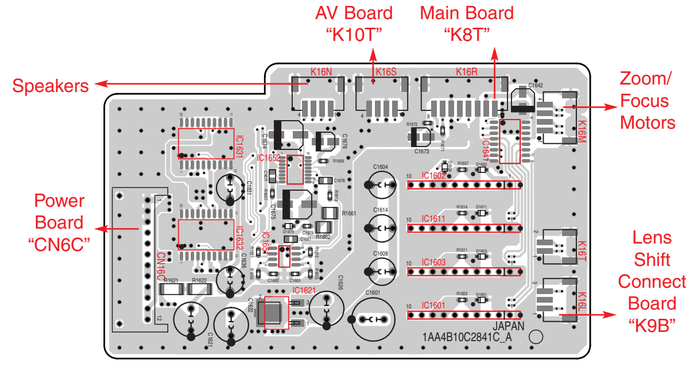


Sub Power Board (SIDE:A)

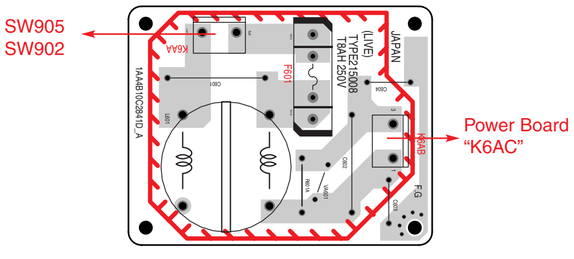


I/F Board “K70B”

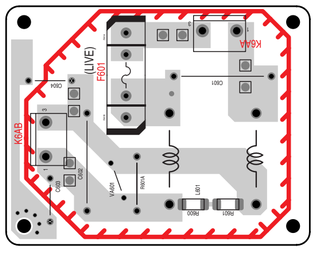
Drive Board (SIDE:A)



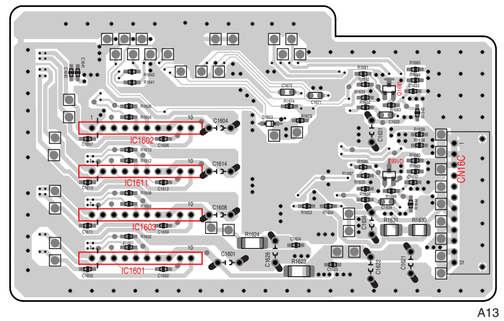
Filter Board (SIDE:A)



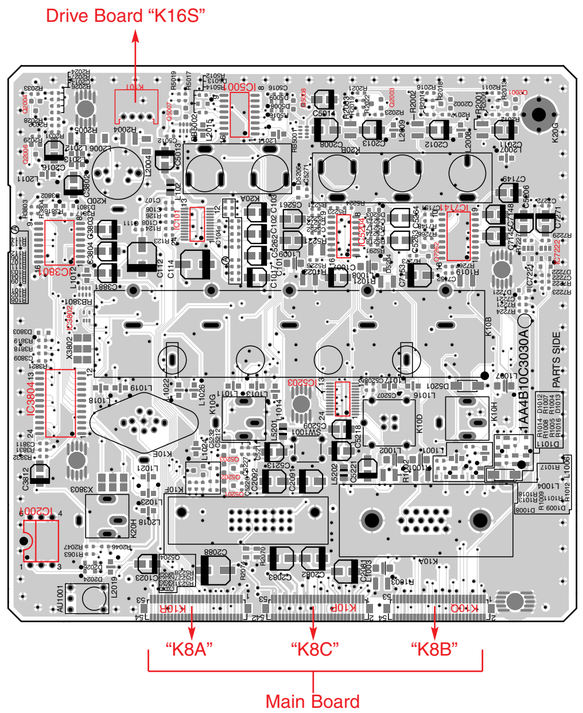
Filter Board (SIDE:B)



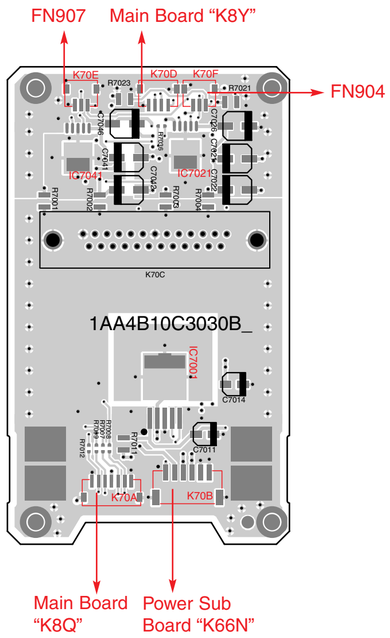
Drive Board (SIDE:B)



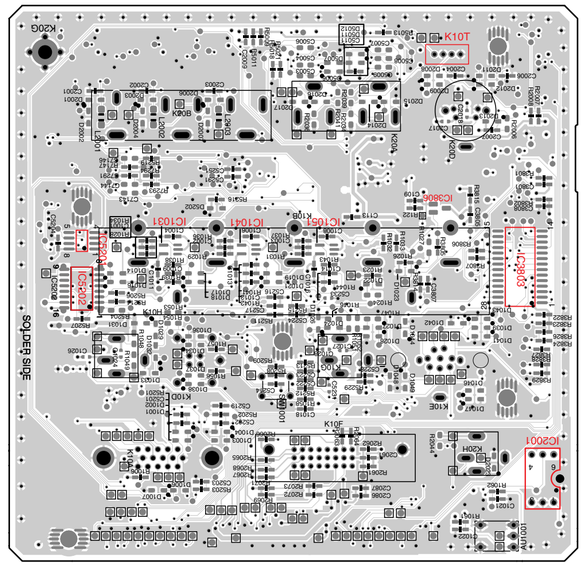
AV Board (SIDE:A)



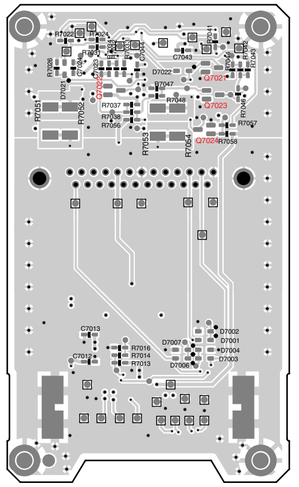
I/F Board (SIDE:A)



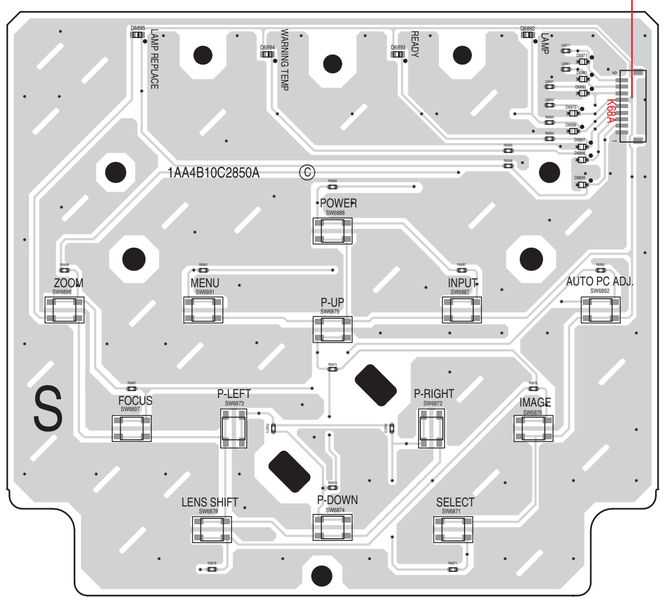
AV Board (SIDE:B)



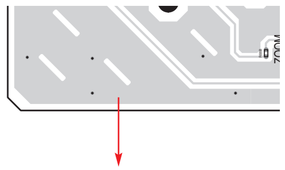
I/F Board (SIDE:B)



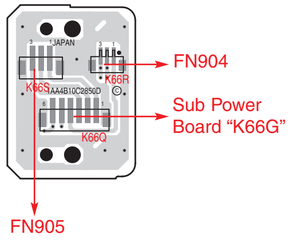
Control Board (SIDE:A)



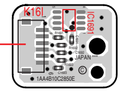
RC Front Board (SIDE:A)



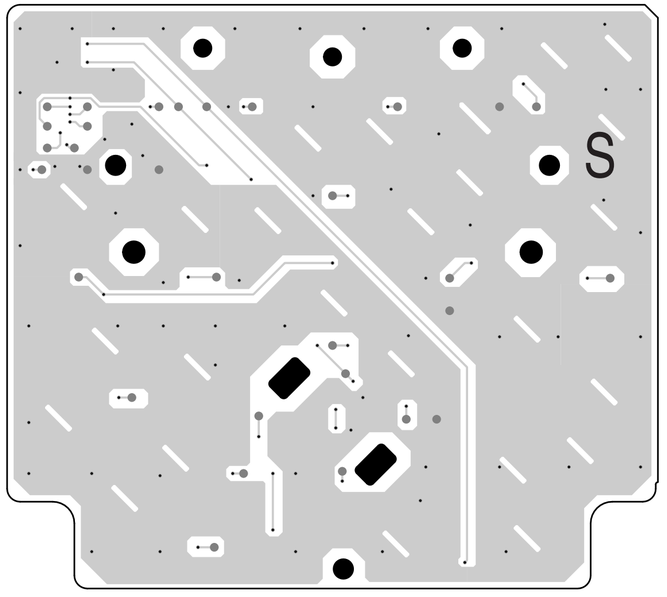
Connect Board (SIDE:A)



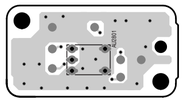
Sensor1 Board (SIDE:A)



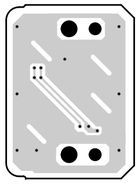
Control Board (SIDE:B)



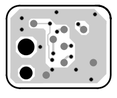
RC Front Board (SIDE:B)



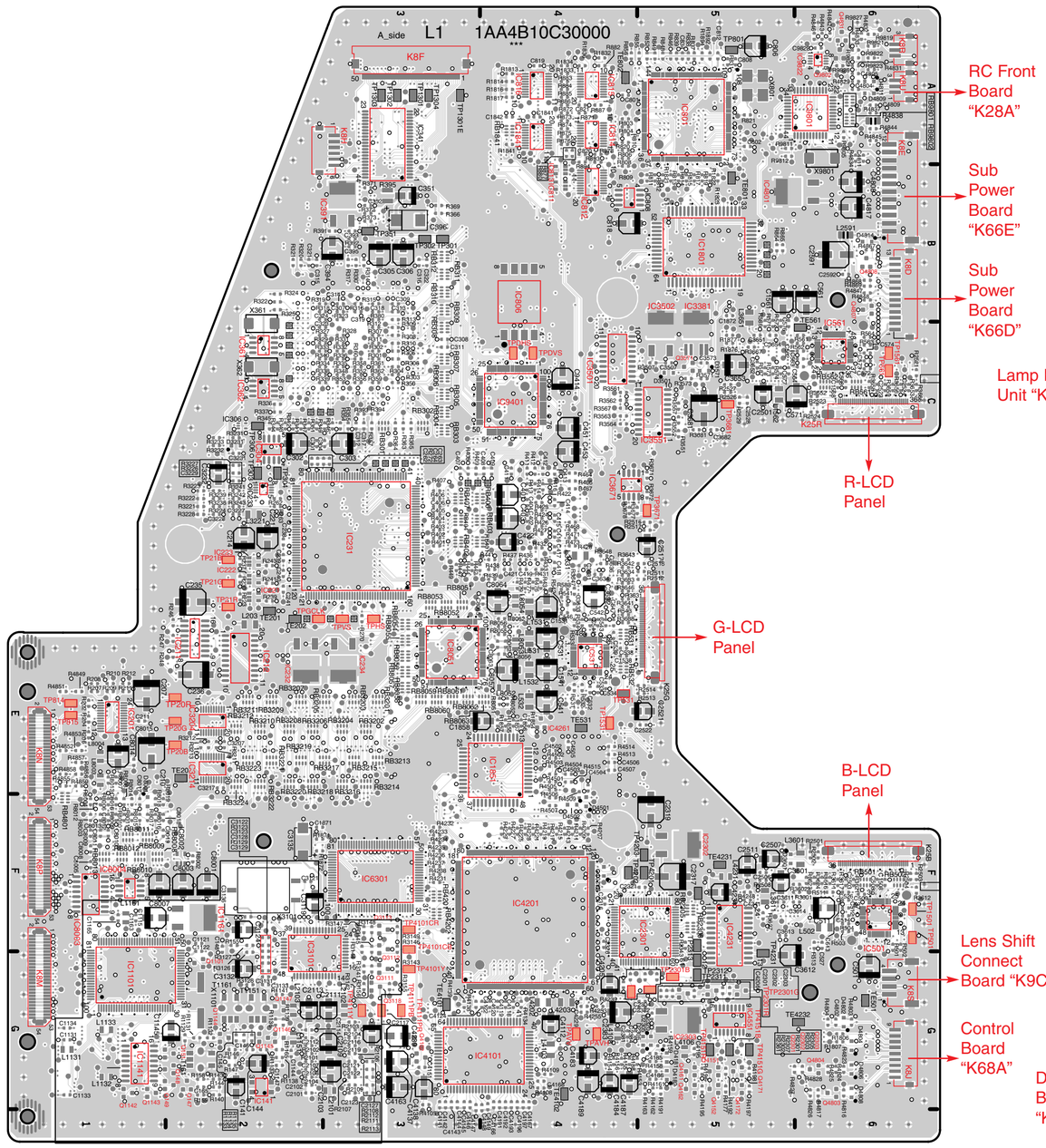
Connect Board (SIDE:B)



Sensor1 Board (SIDE:B)



Main Board (SIDE:A)



Main Board (SIDE:B)